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Change Management through Business Process Reengineering

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Abstract

Business Process Reengineering implementation often leads to fundamental changes within an organization's structure and management process. The purpose of this study is to look at the change management process in organisations where BPR was implemented and how much employees are engaged during this change management process; what are the changes that are difficult to combat during the whole change management process. The paper uses an approach that investigates change management issues .The paper shows that changes must integrate with company strategic objectives, and through detailed planning and workforce cultural changes the new developed system should work well in the organisation. Data was collected after sampling 60 respondents on a five agreement parameters through questionnaire. Cronbach's Alpha reliability of questionnaire was analysed using Independent sample test.

Most of the respondents belong to IT sector which further suggests that the revolution in the IT sector leads to a change in the organisational culture as well. The change is digested by a few and rejected by some. The change achieved after implementation of BPR is a major change for some while others are unaffected by it.

Keywords: Business process re-engineering, implementation of change, change management

I. Introduction

Redesigning the existing business process or bringing a change into it is termed as business process re-engineering. Change is a continuous process in every organisation. Organizations often provide a competitive advantage through Business Process Re-engineering (BPR) process. The organisation is not a mere collection of functions, it is a complete working system- the parts are totally independent, they work either for the best or for the worse.

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In many cases BPR is treated as a development project of any organization. The project team is to do the analysis and implement the changes required in an organization. However, if management thinking and behaviour remains the alike, the result is only a re-arrangement of the soul and pure work.

BPR is a tool for significant change in organisation performance. Adjusting the thinking which has led to the present scenario is the greater priority. It will be argued that the opportunity exploited by BPR has been created by the way we currently think about and run our organisations. It is thinking that informs culture - the way people in organisations behave - and success or failure with BPR has already been shown to be dependent on organisational culture.

In our experience, the adequacy of studies at the beginning of BPR work is the single biggest weakness. People in organisations have been conditioned to look inward and upward. Traditional specialisation of work breeds unresponsiveness to the external environment. The whole thrust of BPR is to cut through the complicated processes built by years of working with functional specialisation. Many employees in the organisation face a situation where the change has been brought in the organisation without knowing the actual condition an organisation is facing internally and externally. What matters to customers and current process performance (how well we respond) would be the baseline against which the success of the initiative should be measured.

From an understanding of the organisation's current capability and the reasons for it (system conditions) the manager would be more able to act on the sources of improvement, he would know how to act on the system. And it is not just a work system, it is a human system. Thus, the process of reengineering requires an effort to know the requirements and the measures to meet those requirements efficiently without affecting the management process much.

It was found that in the change management process people act as a solution to the organisational culture not the problem. In a command and control culture, managers tend to think of performance problems as people problems. To solve these problems they pursue motivational programmes, development programmes and put in place a variety of people management processes (e.g. appraisal, pay). A systems view would lead to quite different action. People are the competitive weapon. BPR often sets out to simplify and increase the flexibility of processes. To operate such processes, you need a culture that enables people to bring their brains to work. Not only should the solution be cognisant of this fact but the method employed in any change will help or hinder according to its inherent assumptions about people. Few things that are necessary during the change management process are:

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Are they to be told how to work in the new order? If so, will this and other command and control assumptions stand in the way of effective change? For example, what measures will be used to run the new system and who will use them? Will their use result in learning and improvement or controls which dampen morale?

II. Review of Literature

Many scholars in their studies have suggested that business process reengineering develops a vision for the business and provides with a business objective after redesigning the management and business in the organisation. specific business objectives such as cost reduction, time reduction, output quality improvement, quality of work life; all these have designed a process for business reengineering and brought a convenient change in the firm. Business process management (BPM), business process reengineering (BPR), and business process innovation (BPI) have been the primary strategies adopted by several organizations to manage their business successfully along with IT.

Hammer (1990) considers Information Technology (IT) as the key factor in BPR for organisation that wants to witness a "radical change" in its operation. He explains the use of IT to challenge the saying that has existed since long before the innovation of modern computer and communications technology. He further says that at the heart of reengineering is the notion of discontinuous thinking or recognizing and breaking away from the outdated rules and fundamental assumptions underlying operations. These rules of work design are based on assumptions about technology, people and organizational goals that no longer hold.

Aremu and Saka (2006) have explained BPR saying that Information technology (IT) is a strategic resource that facilitates major changes in competitive behaviour, marketing and customer service. In addition, IT enables a firm to achieve competitive advantages.

Davenport and Short (1990) further posted that Business Process Reengineering requires taking a broader view of both Information Technology (IT) and business activity and of the relationships between them. IT should be viewed as more than an automating or mechanizing force; to fundamentally reshape the way business is done. Information technology (IT) and Business Process Reengineering (BPR) have developed a recursive relationship since long. IT capabilities should support business processes and business should be in terms of the capabilities IT can provide.

According to Stoddard and Jarvenpea (1995) Business Process are simply a set of activities that transformed a set of inputs into a set of outputs (goods or services) for another person or

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process using people and equipments. Business process entails set of logically related tasks performed to achieve a defined business output or outcome. It involves a wide spectrum of activities procurement, order fulfilment, product development, customer service and sale (Sharma 2006). Thus, Business Process Re-engineering becomes an offshoot of Business Process.

III. Objectives

1. To study the steps involved in developing the change process.
2. To study the different essential factors and their contribution involved in the implementation of change through BPR
3. To study the evaluation and results of the change in the organization through BPR.
4. To study the working of the BPR process which is a collection of specific ordering of work activities across time and place with a beginning, end, and clearly defined inputs and outputs which acted as a structure for the action.

IV. Methodology

After the objective of the study was framed, research methodology was determined. There were twenty items collected from different organizations about change management through business process reengineering. Hypothesis testing research design is used in the research. Alfa method is used to find significant value and T-independent testing is used for further research. SPSS version 16.0 was used to analyze data and to drive relevant information from the collected data.

A. Respondents details-

There are total 54 respondents, in which 32 are females and 22 are males. The most respondent age group is 20-40 in both category males and females. Respondents belong to different designations and different organizations of India.

B. Research design-

- Mostly data was collected from the IT and management section of different sectors.
- The questionnaire was used in study was close ended.

C. Sampling frame-

- Sampling unit- Employees of IT sector and from the different field of management and some others too.

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- Sampling size- 54

D. Tools used for analysis-

Statistical package for social science (SPSS) version 16.0 was used for data analysis. By SPSS version 16.0 the collected data was coded, tabulated and analyzed by using Kaiser Meyer Olkin sampling adequacy.

V. Data Analysis And Findings

To check the reliability of the collected responses, reliability test was applied. The Cronbach's Alpha coefficient on 20 items was found to be .924 which shows that items have relatively high consistency.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.924	.925	20

Table 1: Reliability statistics

Analysis was also done on the Data on the basis of gender. Following table depicts the result of analysis:

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Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
VAR00001	Male	22	1.9545	.57547	.12269
	female	32	2.1875	.93109	.16460
VAR00002	Male	22	2.2273	.68534	.14612
	female	32	2.3125	.69270	.12245
VAR00003	Male	22	2.1364	.77432	.16508
	female	32	2.2813	.85135	.15050
VAR00004	Male	22	1.9545	.84387	.17991
	female	32	2.3750	.83280	.14722
VAR00005	Male	22	1.8636	.83355	.17771
	female	32	2.1563	.88388	.15625
VAR00006	Male	22	2.0909	.68376	.14578
	female	32	2.4688	.87931	.15544
VAR00007	Male	22	1.9545	1.04550	.22290
	female	32	2.1250	.79312	.14020
VAR00008	Male	22	2.0000	.81650	.17408
	female	32	2.2188	.83219	.14711
VAR00009	Male	22	2.0000	.69007	.14712
	female	32	2.1875	.73780	.13043
VAR00010	Male	22	2.1364	.77432	.16508
	female	32	2.2813	.85135	.15050
VAR00011	Male	22	2.0909	.92113	.19639
	female	32	2.5000	.98374	.17390
VAR00012	Male	22	2.0455	.72225	.15398
	female	32	2.4688	.84183	.14882
VAR00013	Male	22	2.2273	.81251	.17323
	female	32	2.3750	.79312	.14020
VAR00014	Male	22	2.3636	1.04860	.22356
	female	32	2.8438	.91966	.16257
VAR00015	Male	22	2.0000	.87287	.18610
	female	32	2.6875	.89578	.15835
VAR00016	Male	22	2.0000	.81650	.17408
	female	32	2.5625	.75935	.13424
VAR00017	Male	22	2.3182	.77989	.16627
	female	32	2.5625	.80071	.14155
VAR00018	Male	22	2.2273	.97257	.20735
	female	32	2.4688	.80259	.14188
VAR00019	Male	22	2.3182	.99457	.21204
	female	32	2.5625	.91361	.16150
VAR00020	Male	22	2.1818	.79501	.16950
	female	32	2.6563	.97085	.17162

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The collected data then analysed by Independent Sample test. The 20 items were analysed and on the basis of the test, following results are obtained: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	do	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
VAR00001	Equal variances assumed	8.074	.006	-1.043	52	.302	-.23295	.22339	-.68121	.21530
	Equal variances not assumed			-1.135	51.534	.262	-.23295	.20529	-.64499	.17908
VAR00002	Equal variances assumed	.133	.717	-.446	52	.657	-.08523	.19103	-.46855	.29810

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	Equal variances not assumed			-.447	45.615	.657	-.08523	.19064	-.46906	.29861
VAR00003	Equal variances assumed	.169	.683	-.637	52	.527	-.14489	.22741	-.60122	.31145
	Equal variances not assumed			-.649	47.967	.520	-.14489	.22339	-.59405	.30428
VAR00004	Equal variances assumed	.013	.910	-1.813	52	.076	-.42045	.23189	-.88578	.04487
	Equal variances not assumed			-1.809	44.900	.077	-.42045	.23247	-.88870	.04779

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VAR00005	Equal variances assumed	.282	.597	-1.223	52	.227	-.29261	.23926	-.77273	.18751
	Equal variances not assumed			-1.237	46.993	.222	-.29261	.23663	-.76866	.18344
VAR00006	Equal variances assumed	4.117	.048	-1.692	52	.097	-.37784	.22325	-.82582	.07013
	Equal variances not assumed			-1.773	51.127	.082	-.37784	.21310	-.80564	.04996
VAR00007	Equal variances assumed	1.711	.197	-.681	52	.499	-.17045	.25025	-.67261	.33171

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	Equal variances not assumed			-.647	36.982	.521	-.17045	.26333	-.70402	.36311
VAR00008	Equal variances assumed	.275	.602	-.956	52	.343	-.21875	.22873	-.67774	.24024
	Equal variances not assumed			-.960	45.861	.342	-.21875	.22791	-.67756	.24006
VAR00009	Equal variances assumed	.762	.387	-.942	52	.351	-.18750	.19911	-.58703	.21203
	Equal variances not assumed			-.954	47.221	.345	-.18750	.19661	-.58298	.20798

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VAR00010	Equal variances assumed	.169	.683	-.637	52	.527	-.14489	.22741	-.60122	.31145
	Equal variances not assumed			-.649	47.967	.520	-.14489	.22339	-.59405	.30428
VAR00011	Equal variances assumed	1.696	.199	-1.540	52	.130	-.40909	.26559	-.94203	.12385
	Equal variances not assumed			-1.560	47.190	.126	-.40909	.26232	-.93675	.11856
VAR00012	Equal variances assumed	2.276	.137	-1.921	52	.060	-.42330	.22037	-.86551	.01892

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	Equal variances not assumed			-1.977	49.371	.054	-.42330	.21414	-.85355	.00696
VAR00013	Equal variances assumed	.073	.788	-.666	52	.508	-.14773	.22184	-.59289	.29743
	Equal variances not assumed			-.663	44.569	.511	-.14773	.22286	-.59670	.30125
VAR00014	Equal variances assumed	.254	.616	-1.780	52	.081	-.48011	.26970	-1.02130	.06107
	Equal variances not assumed			-1.737	41.265	.090	-.48011	.27642	-1.03826	.07803

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VAR00015	Equal variances assumed	.143	.707	-2.800	52	.007	-.68750	.24555	-1.18023	-.19477
	Equal variances not assumed			-2.814	46.061	.007	-.68750	.24435	-1.17934	-.19566
VAR00016	Equal variances assumed	.008	.927	-2.594	52	.012	-.56250	.21684	-.99762	-.12738
	Equal variances not assumed			-2.559	43.081	.014	-.56250	.21982	-1.00579	-.11921
VAR00017	Equal variances assumed	.001	.976	-1.113	52	.271	-.24432	.21945	-.68468	.19604

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	Equal variances not assumed			-1.119	46.074	.269	-.24432	.21836	-.68384	.19520
VAR00018	Equal variances assumed	.090	.765	-.996	52	.324	-.24148	.24240	-.72788	.24493
	Equal variances not assumed			-.961	39.415	.342	-.24148	.25125	-.74950	.26655
VAR00019	Equal variances assumed	.005	.943	-.931	52	.356	-.24432	.26232	-.77069	.28206
	Equal variances not assumed			-.917	42.698	.364	-.24432	.26655	-.78197	.29333

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VAR00020	Equal variances assumed	1.816	.184	-1.895	52	.064	-.47443	.25036	-.97681	.02795
	Equal variances not assumed			-1.967	50.310	.055	-.47443	.24121	-.95885	.00998

The tabulated value is .05 and it is compared with significance value obtained through the Independent sample test. If the significance value(sig or P) is greater than the tabulated value(tab) the null hypothesis is accepted. And if the significance value is less than the tabulated value, the null hypothesis is rejected.

(1) VAR00001

Null Hypothesis: The Supervisor is successful in conveying the reason behind the change.

Sig(P)=.006

P<tab

The significant value is less than the tabulated value hence the Supervisor is not successful in conveying the reason behind the change.

(2) VAR00002

Null Hypothesis: Executive is clear about the future scenario occurring due to change

Sig(P)=.717

P>tab

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The significant value is greater than the tabulated value hence the Executive is clear about the future scenario occurring due to change

(3) VAR00003

Null Hypothesis: The Stakeholders are known

Sig(P)=.683

P>tab

The significant value is greater than the tabulated value hence the Stakeholders are known.

(4) VAR00004

Null hypothesis: Stakeholders are aware of their contribution in the process of implementing change.

Sig(P)=.910

P>tab

The significant value is greater than the tabulated value hence the Stakeholders are aware of their contribution in the process of implementing

(5)VAR00005:

Null hypothesis: Employees are having total information about the decision making process.

Sig(P)=.597

P>tab

The significant value is greater than the tabulated value hence the Employees are having total information about the decision making process.

(6)VAR00006:

Null hypothesis: Policies are developed or human resource principles are considered for change.

Sig(P)=.048

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P<tab

The significant value is less than the tabulated value hence the Policies are not developed or human resource principles are considered for change.

(7)VAR00007:

Null hypothesis: The culture of the organization is encouraging evaluation process and reflection

Sig(P)=.197

P>tab

The significant value is greater than the tabulated value hence the culture of the organization is encouraging evaluation process and reflection.

(8)VAR00008:

Null hypothesis: Organization has developed Strategies to identify and mitigate risk

Sig(P)=.602

P>tab

The significant value is more than the tabulated value hence the Organization has developed Strategies to identify and mitigate risk

(9)VAR00009:

Null hypothesis: Major changes are visible on cost after the implementation of BPR or Change Sig(P)=.387

P>tab

The significant value is more than the tabulated value hence the Major changes are visible on cost after the implementation of BPR or Change

(10)VAR000010:

Null hypothesis: Enhancements are visible on productivity and efficiency after the implementation of BPR or Change

Sig(P)=.683

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P>tab

The significant value is more than the tabulated value hence Enhancements are visible on productivity and efficiency after the implementation of BPR or change

(11) VAR000011:

Null hypothesis: Enhancements are visible on the behaviour and attitude of employee after the implementation of BPR or Change

Sig(P)=.199

P>tab

The significant value is more than the tabulated value hence Enhancements are visible on the behaviour and attitude of employee after the implementation of BPR or Change

(12) VAR000012:

Null hypothesis: changes are encountered in skills and knowledge of employees after the implementation of BPR or Change

Sig(P)=.137

P>tab

The significant value is more than the tabulated value hence changes are encountered in skills and knowledge of employees after the implementation of BPR or Change

(13) VAR000013:

Null hypothesis: changes are visible in team coordination and management system after the implementation of BPR or Change

Sig(P)=.788

P>tab

The significant value is more than the tabulated value hence changes are visible in team coordination and management system after the implementation of BPR or Change

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(14) VAR000014:

Null hypothesis: employee experience increase in salary after the implementation of BPR or Change

Sig(P)=.616

P>tab

The significant value is more than the tabulated value hence employee experience increase in salary after the implementation of BPR or Change

(15) VAR000015:

Null hypothesis: Promotion is given after the implementation of bpr

Sig(P)=.707

P>tab

The significant value is more than the tabulated value hence Promotion is given after the implementation of bpr

(16) VAR000016:

Null hypothesis: Employees are empowered after the implementation of BPR or Change

Sig(P)=.927

P>tab

The significant value is more than the tabulated value hence employees are empowered after the implementation of BPR or Change

(17) VAR000017:

Null hypothesis: Satisfaction is felt with the work after the implementation of BPR or Change
Sig(P)=.976

P>tab

The significant value is more than the tabulated value hence Satisfaction is felt with the work after the implementation of BPR or Change

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(18) VAR000018:

Null hypothesis: Measurement methods are used for evaluation of performance in terms of time after the implementation of BPR or Change

Sig(P)=.765

P>tab

The significant value is more than the tabulated value hence Measurement methods are used for evaluation of performance in terms of time after the implementation of BPR or Change

(19) VAR000019:

Null hypothesis: Measurement methods are used for evaluation of performance in terms of cost after the implementation of BPR or Change

Sig(P)=.943

P>tab

The significant value is more than the tabulated value hence Measurement methods are used for evaluation of performance in terms of cost after the implementation of BPR or Change

(20) VAR000020:

Null hypothesis: Measurement methods are used for evaluation of performance in terms of efficiency after the implementation of BPR or Change

Sig(P)=.184

P>tab

The significant value is more than the tabulated value hence Measurement methods are used for evaluation of performance in terms of efficiency after the implementation of BPR or Change

The reason behind failure of change is poor communication system or weak organizational structure or any other reason which will resist employees in accepting the

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change properly. Moreover, proper human resource strategies and planning for risk management will contribute in the success of change.

VI. Limitations

- The mostly data which was collected was only the age group 20-40.
- The sample size was small.
- The respondents, who were from technical fields, were not properly aware about business process re-engineering.
- Employees of technical and some other sectors had not proper knowledge of Business Process Reengineering. This is also a big reason they didn't respond.
- Findings of the study cannot generalised to employees who have gained experience of only 1-3 years thus certain factors such as experience and knowledge of employees have not been taken into consideration into the study.
- The factors that are important for designing a business process such as four important views – the people view, the process view, the resource view, and the customer view but here only employees view are taken into account keeping in mind the BPR Process.

VII. Conclusion

- Environment is dynamic and company cannot sustain if do not accept change. Change is required in different organizations for several reasons like introducing new technology in organization, modification in organization structure and change in leadership style, customer requirement and competition and other. The heads of Management play a very crucial role in implementing change. The way in which they take any decision and what culture they create in organization they shape the change environment. Policies of management and approaches determine the degree to which employees will welcome and accept the change.
- Employee involvement in the decision making process generates new ideas and employee feel empowered and is likely to accept change. It also acknowledges employees clear about the process and steps involved in the change and its consequences on the work environment.
- The process of change highly demands contribution of employees and stakeholder added with fact that they are aware of their contribution. A futuristic view which can assess possible difficulties with different resources would help in implementing change smoothly. Once the change is implemented it is essential to check the impact on different areas and working of organization.

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