Study on Awareness and Applicability of Business Process Reengineering and Its Impact on Employee's Skill Development of Small and Medium Sized Enterprises

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Abstract

Small and medium sized enterprises (SMEs) are very important for Indian economy. Many SMEs used traditional methods hence they can't produce product of same quality which produced by their global competitor. So many SMEs failed in global market. To survive in global market SMEs should reengineer their business process which helps SMEs to improve quality of product which match to global standard. Business process reengineering (BPR) gives dramatic improvement in performance. Purpose of study to find out the general awareness, applicability, major obstacles of BPR in SMEs and Impact of BPR on employee's skill development of SMEs. 42 owners of SMEs located at different places of Mumbai chosen for survey and questionnaire were distributed to them.26 usable questionnaire were analysed using statistical tool like mean analysis, correlation. Findings reveal that SMEs are aware of BPR and top management of many SMEs positive to implement BPR. BPR is positively related with employee's skill development of SMEs.

Keywords: *Small and medium sized enterprises (SMEs), Business process reengineering (BPR), Employee's skill development, Dramatic improvement.*

1. Introduction:

Today enterprises compete with each other on the basis of time. Every enterprise try to provide goods and services of high quality with less delivery time. Due to globalization there is very intense competition in global market. Small and medium size organization face problem to sustain in global market due to their traditional old business processes. SMEs can't produce product of global standard with their old business processes. Hence many SMEs failed to survive in dynamic global market. Large scale enterprises use BPR to get dramatic improvement in performance. SMEs having only one option to sustain in stiff competition are either go for reengineering of business processes or closed down.(Luo Fan et.al ,2012).

SMEs should use BPR to get dramatic improvement in performance. SMEs having many obstacles to implement BPR also its applicability is differ to SMEs than large scale enterprises. Hence it is necessary to study awareness, obstacles and applicability of BPR in SMEs

1.2 Need for the Study:

SMEs are very important for economic development of India. SMEs help to remove economic disparities between rural and urban area by providing employment to unskilled rural employee's s. But SMEs find difficult to sustain in stiff competition so they have to use BPR to improve performance dramatically. (Andrei Ionuţ Şerban,2015)

Very less research carried out on BPR and that is also related to large scale enterprises. There is paucity of research in the area of BPR in SMEs hence it is it is need to study BPR in SMEs.

1.3 Objectives:

1) To find out the general awareness of BPR in SMEs.

2) To find applicability of BPR in SMEs

3) To find out major obstacles of BPR implementation in SMEs.

4) To study impact of BPR on employee's skill development of SMEs.

2. Review of Literature:

Peter O Neill &Amrik Sohel (1999) explain evolution of BPR from 1980 to 1998.Also explained how BPR different from TQM. They explained need of BPR, according to them to survive in global competitive world it is necessary for organization to concentrate on process management which means BPR. BPR is essential because of customer demand, competition, market need.IvanaMartonova (2013) explained about integration of BPR and TQM. Researcher found that both TQM and BPR used for quality improvement. TQM is used for continuous improvement while BPR used for dramatic improvement.Rodney Macadam (2002) explained that positivistic approach which is applied in large scale organization which is not fit for SMEs. Because SMEs have different key issues and constraints other than large scale organization.MuatamedAbedHajer,

Zawiyahmohammadyusuf (2013) explained about building self-confidence and self-efficacy among employee's s in SMEs in BPR implementation. Researcher explained self-confidence and self-efficacy is very important factors for SME in BPR implementation.Researcher explained that IT can be used as enabler or means of BPR. IT and BPR are closely connected.Dr.Orogbu,Obiagelililian,Dr.Onyeizugbe, ChineduuzochukwuandOnuzulikeNKechi (2015) explained impact of BPR on employee's s satisfaction. Researcher also studied relationship between BPR and employee's retention. Researcher found that there is positive relation between BPR and employee's satisfaction.

OsamaSaminsanban,ZiadAlZudi,NafezAli,Atallaalao taish (2017) explained impact of Flow morale and motivation on employee's productivity and competitiveness.That to improve productivity high morale and motivation is necessary which can be obtained by reengineering of systems and processes.AlemtAbay (2015) explained staff perception about BPR implementation.BPR widely used by many organizations to redesign business processes to improve performance which is requirement of globalised competition and customer demand. Many times BPR concept is not properly communicated to employee's s hence there is misunderstanding of BPR project in employee's s mind. Colin J. Coulson-Thomas (1996) explained relationship between BPR and learning organization. BPR is management strategy which is used for dramatic improvement in performance through reengineering of processes. Now it is important to study that BPR implementation create new approach to learning. After BPR organization improved their learning capabilities

3. Research Methodology

3.1 The aim for the research
To study awareness and applicability of BPR in SMES. Also to find impact of BPR on employees skill development

3.2 Data collection
Primary data collected from 26 owners of SMEs in Mumbai.

3.3 Sampling technique
Convenience sampling is used for this study.

3.4 Samplesize
The sample size is restricted to 26 respondents.

3.5 Sampling unit
The sampling unit is a owners of SMEs from Mumbai city.

3.6 Research instrument
Structured and closed tested questionnaire. A five point Likert's scale was used on all questions. The contact method was in person.

3.7 Statistical Tools used
1. Mean analysis 2.principle component analysis 3.correlation analysis

3.8 Limitations of the Study
1. Only owners of SMEs taken for this study.
2. Sample size is quite small
3. Convenience sampling is used for study may not represent population

4. Analysis and Discussion

Table 1: general awareness about BPR in SMEs.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Never heard of it	26	1	4	2.50	.906
Done under different name	26	2	5	3.27	.919
Just a management fad	26	2	5	3.54	.811
Strategic part of our business	26	3	5	3.69	.549
Something beneficial for company	26	3	5	4.00	.400
Highly essential for your company	26	3	5	3.85	.543
It has some specific goal	26	2	5	3.77	.652
It has specific Inputs	26	2	5	3.73	.667
It has a specific output	26	2	5	3.85	.675

	N				
It uses resources	26	2	5	3.65	.745
Activities performed in some order	26	3	5	3.69	.618
Many affect more than one organisational unit	26	3	5	3.73	.604
It has horizontal impact	26	2	4	3.54	.582
It creates value for customer	26	3	5	3.88	.653
Valid N (list wise)	26				

Source: Primary Data

Table 2 One-Sample Testof general awareness about BPR in SMEs.

One-Sample Test						
	Test Value = 3					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Never heard of it	-2.815	25	.009	-.500	-.87	-.13
Done under different name	1.494	25	.148	.269	-.10	.64
Just a management fad	3.384	25	.002	.538	.21	.87
Strategic part of our business	6.429	25	.000	.692	.47	.91
Something beneficial for company	12.748	25	.000	1.000	.84	1.16
Highly essential for your company	7.939	25	.000	.846	.63	1.07
It has some specific goal	6.019	25	.000	.769	.51	1.03
It has specific Inputs	5.588	25	.000	.731	.46	1.00
It has a specific output	6.394	25	.000	.846	.57	1.12
It uses resources	4.474	25	.000	.654	.35	.95
Activities performed in some order	5.715	25	.000	.692	.44	.94
Many affect more than one organisational unit	6.171	25	.000	.731	.49	.97
It has horizontal impact	4.719	25	.000	.538	.30	.77

Source: Primary Data

Interpretation:

To identify BPR need awareness among SMEs 13 variables have been considered. Mean analysis is used for data collected as measuring variables. In mean analysis; mean is equal to 3 means respondents are Neutral and if mean close to 5 means respondents' agreement level is higher and if mean is close to 1 means respondent's agreement level is low. For first variable Never heard of it mean is 2.50, which is below 3 which means people are known BPR. Variable something beneficial for the company has highest mean equal to 4 which means respondents are thinking that BPR is beneficial for company. Remaining all variables having mean more than 3 which mean respondents are positive that they are known about need awareness of BPR in SMEs.T-

test has been performed to check significance level of estimated mean of all variables which found significant. From one sample test we can observed that all variables except done under different name having significant value less than 0.05 it means they are statistically significant. Results which are obtained for considered sample through mean analysis can be obtained in the universe.

Table 3: Applicability of BPR to SMEs

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Support Highly changes like BPR	26	2	4	3.58	.643
Make favorable policies for BPR	26	2	4	3.69	.549
Sees it important but hardly supports it	26	2	5	2.88	.909
Sees it as a waste and hardly bothers	26	2	4	2.62	.804
Is strongly in favour of BPR	26	2	5	3.58	.758
Very supportive in the beginning	26	2	4	2.69	.788
Is thinking to adopt BPR soon	26	1	4	3.12	.766
Valid N (list wise)	26				

Source: Primary Data

Interpretation:

From table of mean analysis, it can be observed that variables like Management support highly for changes like BPR, make favorable policies for BPR, is strongly in favor of BPR and is thinking to adopt BPR soon having mean more than 3 and variables like sees it important but hardly support it sees it a waste and hardly bothers, very supportive in the beginning are less than 3 Which shows that top management thinks that BPR is important in SMEs hence they support BPR implementation positively. SMEs which are not implemented BPR now going to adopt BPR which observed for mean 3.12 of variable is thinking to adopt soon

Table 5: major obstacles of BPR implementation in SMEs

Communalities		
	Initial	Extraction
Could be a costly process	1.000	.869
Need to invest huge money	1.000	.825
Time consuming process	1.000	.736
It takes lot of time to design	1.000	.862
Extensive planning required	1.000	.657
Need experts to implement and monitor	1.000	.899
Lack of expert knowledge	1.000	.776
Difficult to find real experts on BPR	1.000	.747
Extraction Method: Principal Component Analysis.		

Source: Primary Data

Table 6: Total Variance Explained

| Total Variance Explained							
Component		Initial Eigenvalues			Extraction Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dimension0	1	5.075	63.443	63.443	5.075	63.443	63.443
	2	1.294	16.179	79.622	1.294	16.179	79.622
	3	.615	7.690	87.312			
	4	.383	4.789	92.100			
	5	.339	4.241	96.342			
	6	.154	1.928	98.270			
	7	.099	1.234	99.504			
	8	.040	.496	100.000			
Extraction Method: Principal Component Analysis.							

Source: SPSS data analysis output)
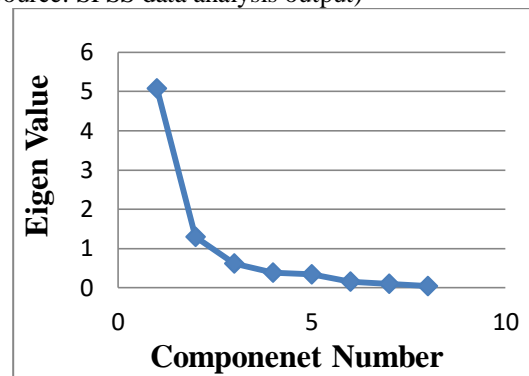
Fig. 1 Total variance

Eigen value describes total variance given by each factor. Eigen value also gives total variance percentage of each factor. From the total variance researcher can find the minimum number of factors which will maximum variance of data.

Table 7: Principal Component Analysis

Component Matrixᵃ		
	Component	
	1	2
Could be a costly process	**.863**	-.352
Need to invest huge money	**.861**	-.287
Time consuming process	**.823**	-.243
It takes lot of time to design	**.898**	-.235
Extensive planning required	.774	-.238
Need experts to implement and monitor	.664	**.677**
Lack of expert knowledge	.719	.509
Difficult to find real experts on BPR	.739	.448
Extraction Method: Principal Component Analysis.		

Component Matrixᵃ		
	Component	
	1	2
Could be a costly process	**.863**	-.352
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Need experts to implement and monitor	.664	**.677**
Lack of expert knowledge	.719	.509
Difficult to find real experts on BPR	.739	.448
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

Interpretation:

Interpretation of above matrix on various factors is facilitated by identifying the

Statements that have large Loading in the same factor. The factor can be interpreted in terms of the statement that loads high on it. Out of 8 factors, 5 factors act as major obstacles of BPR in SMEs. These Factors (obstacles) are it takes lot of time to design, could be costly process, need to invest huge money, time consuming process, need expert to implement and monitor.

To study impact of BPR on employee's skill development of SMEs.Hypothesis 1-There is significant relationship between BPR and Employee's skill development of SMEs

Table 8: correlations

Correlations		BPR implemented in your company	Helps in employee's skill development
BPR implemented in your company	Pearson Correlation	1	.699**
	Sig. (2-tailed)		0
	N	26	26
Helps in employee's skill development	Pearson Correlation	.699**	1
	Sig. (2-tailed)	0	
	N	26	26
** Correlation is significant at the 0.01 level (2-tailed).			

Correlation Coefficient between BPR implemented in your company and helps in employee's skill development is 0.699 with level of significance 0.01.it is concluded that there exist relationship between BPR and employee's skill development.

Major findings of study

1) Owners of SMEs are aware about BPR. There is proper awareness within the SMEs about BPR and its need for their betterment.

2) In most of the SMEs BPR found important and applicable in make favorable policies for BPR, is strongly favor of BPR and supportive to highly changes like BPR etc.

3) Major obstacles of BPR implementation in SMEs are it takes lot of time to design, could be costly process, need to invest huge money, need expert to implement and monitor & lack of expert knowledge etc.

4) There is positive relationship between BPR and skill development of employee's in SMEs. Increase in BPR efforts increases skill development of employee's of SMEs.

Conclusion

After this study it is clear that owners of SMEs are well aware about BPR. They know the importanceof BPR for improvement in performance. This study gives major obstacles of BPR implementation in SMEs which gives idea to owners of SMEs on which obstacles they focus more to remove them. If owners focus on these major obstacles chances of BPR failure reduced. Study gives that there is significant relationship between BPR and employee's skill development. Owners understand that BPR can be used as tool for employee's skill development.Owners understand importance and applicability of BPR in SMEs so they support for BPR implementation.

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