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Employee Specific Attributes for Managing Organisational Change: An Empirical Study

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Abstract:

Organizational change is indispensable for an organization to be competitive in current fast changing business environment. There are various factors affecting effective and efficient management of organizational change, however, employee related factors have a profound effect on efforts for managing organisational change. There are few scales available for measuring a number of employee attributes that are important for successfully managing change in an organisation. Most of the available scales measure a single employee related factor affecting change management. The present study has aimed for measuring multiple employee related factors. An empirical study has been conducted in Indian business organization which has resulted into providing the underlying five factor structure of managing organizational change which is found reliable and has construct validity. Further, the study also proposes a scale for measuring change related employee attributes that facilitate in managing change.

Keywords: *Organisational change, factor analysis, organisational change scale, factor structure*

1. Introduction

In current business environment marked by frequent technological changes and enhanced market competition; an organisation must remain competitive, it must foresee how to attain a competitive edge above the rest. Therefore, an organisation's ability to see where it wants to be in the future and how to manage the journey of getting there; form the crux of managing organisational change. Managing change is a process of planning and implementing steps needed to bring in the desired change and at the other hand it involves coping with the challenges faced during the process in order to minimize employee resistance and costs to the organisation while simultaneously maximizing the effectiveness of the change effort. Due to the importance and complexity of organisational change, its management is a much needed managerial skill (Senior, 2002).

Successful management of change is of utmost importance in order to survive and succeed in this highly competitive business environment (Luecke, 2003). Beer and Nohria (2000) described that nearly 70 percent of all change initiatives fail. The number one reason why organizational change initiatives fail is resistance to change (Deloitte & Touche, 1996), which is closely linked with the development of negative employee attitudes towards change. Employees are the ones responsible for implementing changes in the workplace and their perception plays an important role in the change process (Cullen et.al, 2013). Keeping in mind the psychological predispositions of these change recipients (Judge et.al, 1999), organisations must revamp the implementation process so as to create positive change experience for the employees (Cullen et.al, 2013).

There are a few scales measuring the dynamic construct of organisational change, with a focus on employee perspective. Readiness for organisational scale (Holt et.al, 2007) assesses the degree to which employees feel positive about a new change initiative. Another widely used scale measures attitude towards organisational change developed by Dunham, Grube, Gardner, Cummings, and Pierce in 1989. Herscovitch & Meyer (2002) developed a scale to measure behavioural support for change in an organisation. It is known as commitment to change scale. Fear of change among employees often creates unwillingness to accept change. To measure individual fear of change, a scale was constructed by Weeks, Roberts, Chonko & Jones in 2004. There are many more scales measuring the construct of managing organisational change, but most of them focus on one aspect of managing change from employee perspective.

This study intends to develop a measure of managing change based on employee specific attributes related to change. The study also aims to explore the factor structure of the measure. Factor structure implies the manner in which scale items differ in terms of grouping using factor analysis, which is an important statistical technique used to test construct validity of questionnaire items (Rattray & Jones, 2007). Construct validity refers to how well items in a questionnaire represents the underlying conceptual structure. Most important pre requisite in managing organisational change is managing employees of the organisation undergoing change. Employees are the ones responsible for planning, initiating, implementing and rectifying (in case of failure to meet objectives of proposed change program) change oriented actions. With this rationale in mind the study was undertaken as micro level perspective of change is necessary since the role individuals play in the change process is often underrated (Choi, 2011). Top management of an

organisation must first ensure that genuine employee concerns regarding change must be duly addressed before initiating a change. Employee concerns relating to change can be in the form of fear of change, lack of commitment to change, unwillingness to accept change, change cynicism; leading to negative employee perspective towards change which may culminate into employees strongly resisting the changes at the workplace. Negative employee attitudes toward change can adversely impact their morale, productivity and turnover intentions (Iacovini, 1993). Top management of an organisation undergoing change must make all efforts to check the emergence of negative employee attitudes towards change, as it would bring the entire organisational machinery to a standstill. By ensuring that the need for change is a genuine one, preparing employees for the change, getting support of the top management and making sure change is beneficial for employees; implementing change would be easier as employees would have a positive attitude towards change.

This paper will commence with defining the concept of managing organisational change, highlight its importance within organisational sphere. Then moving on to the methodology adopted for the study and finally, explaining the results and its implications.

2. Literature Review

2.1. *Managing Organisational Change*

Managing organisational change is “the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers” (Moran & Brightman, 2001; p.77). Managing change is a dynamic construct which involves numerous factors specific to the context and process of change in questions. Different scholars and experts have given their own perspective of what change is and how to go about managing it. Singh (2009) defined it as “the coping process of moving from the present state to a desired state that individuals, groups and organisations undertake in response to dynamic internal and external factors that alter current realities” (p.). Markovic (2008) defines managing organizational change as “implementation of new procedures or technologies intended to realign an organization with the changing demands of its business environment, or to capitalize on business opportunities. In addition, organizational change management is the process of recognizing, guiding, and managing human emotions and reactions in a way that minimizes the inevitable drop in productivity that accompanies change.”(p.7). There so many perspectives on managing organisational change that it is difficult to agree on one accepted or conventional definition of managing change.

According to Burnes (2004) change is an ever-present feature of an organisational life. Lack of change or stability is considered to be a serious issue from a managerial point of view (Sturdy & Grey, 2003). The general aim of organizational change is to adapt to the new environment (Child & Smith, 1987) or to improve its performance (Boeker, 1997). The process of adapting to changes accompanied by enhanced performance is the essence of managing organisational change. Thus, in contemporary business environment marked by increased globalisation, technological innovation, highly competitive markets and increased knowledge workforce; managing organisational change has become important as well as trivial. There is wide range of changes that affect organisations and each one is accompanied by its distinct characteristics and challenges. Thus, management of change is an arduous task for organisations.

2.2. *Reviewing Scales on Managing Organisational Change*

Holt, Armenakis, Feild & Haris (2007) developed a scale to gauge employee readiness for organisational change consisting of 25 items. It measures change related employee beliefs, namely – change efficacy, appropriateness, personal valence and management support.

Herscovitch and Meyer’s (2002) commitment to organisational change scale consisting of 11 items; measures three components of commitment to change – affective, normative and continuance. A scale to measure attitude towards change was developed by Dunham, Grube, Gardner, Cummings, and Pierce (1989). This scale consists of 18 items with three subscales measuring cognitive, affective and behavioural tendencies towards organisational change.

Weeks, Roberts, Chonko & Jones in 2004 developed a scale to measure individual fear of change consisting of 5 items. An 18 item scale measuring employee resistance to change was developed by Oreg (2006). This scale measures cognitive, affective and behavioural reactions to change.

There are numerous scales relating to employee specific attributes of managing change, but each one looks into only one aspect of managing change. Therefore, there is a need for a single comprehensive scale to measure employee specific attributes related to managing organisational change. With this point in mind, this study develops a scale that measures employee specific attributes which will aid in managing change in an efficient manner.

3. Methodology

The study has been conducted in Indian Context by taking samples from Indian Business Organizations using items from following questionnaires:

- Readiness for change scale (Holt et.al, 2007)
- Affective commitment scale (Herscovitch Meyer, 2002)
- Training scale (Sun, Aryee & Law, 2007)
- Individual Fear of Change scale (Weeks et.al, 2004)

- Turnover intentions scale (Neves, 2009; Robinson, 1996)

In all there were 40 items in the questionnaire. Some of the items were worded negatively so as to reduce the human biases. The sample size consists of 100 employees randomly selected from private business organisations in India. On this sample, factor analysis has been employed, which is an important tool for scale development. It empirically determines how many constructs underlie a set of items. Factor analysis helps to establish how many sets of questionnaire items measure the same underlying factor and thus, can be combined to form a more reliable measure of that factor (Taylor, 2001). This technique also helps to determine the individual items that do not fit into the factorially derived categories of items; such items can be considered for elimination. It enables the researcher to determine the factor structure underlying a set of items so that scale reliability using Cronbach's alpha can be measured.

Since this study aims to develop a scale within Indian context therefore, exploratory factor analysis has been used. Exploratory factor analysis is used to identify the factor structure of a set of items and to check its internal reliability. Exploratory analysis is a more appropriate technique for scale development as there is "little theoretical or empirical basis to make strong assumptions about how many common factors exist" (Fabrigar et.al, 1999; p.277).

Data was collected manually, questionnaire were administered to employees of business organisations. They were informed about the procedure of filling out the questionnaire. Data thus, collected was used to conduct an Exploratory Factor Analysis to explore the underlying factor structure, identify and eliminate items that do not fit the factor structure. Rotated Component Matrix and scree plot have been used to extract factors for the construct of managing organisational change. The reliability of resultant factors has been estimated using Cronbach's alpha.

4. Results and Discussion

After conducting exploratory factor analysis five-factor structure seemed suitable. These five factors have been extracted based on the scree plot and having eigenvalues greater than 2 accounting for 66.27% of the variance (see table 1). The Kaiser criterion states that one should use those factors having the eigenvalues greater than one (DeCoster, 1998). Going by this criterion, 9 factors could have been retained, however, the Scree plot is an important tool used in extraction of factors. It plots eigenvalues of the correlation matrix in descending order, and one must use a number of factors equal to the number of eigenvalues that occur prior to the last major drop in eigenvalue magnitude (DeCoster, 1998). A look at the scree plot for managing organisational change scale (Figure 1) reveals that after the fifth factor the scree plot dips and becomes flatter. Therefore, based on these two considerations five factors have been retained for the scale.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.74	24.19	24.19	7.74	24.19	24.19	5.67	17.72	17.72
2	4.98	15.57	39.76	4.98	15.57	39.76	5.06	15.80	33.52
3	3.46	10.82	50.58	3.46	10.82	50.58	3.99	12.47	45.99
4	2.81	8.77	59.35	2.81	8.77	59.35	3.68	11.51	57.51
5	2.21	6.92	66.27	2.21	6.92	66.27	2.80	8.76	66.27
6	1.66	5.17	71.44						
7	1.57	4.89	76.34						

Extraction Method: Principal Component Analysis.

Table 1: Eigen Values and Variance for Managing Organisational Change Scale

Out of the 40 items initially used 8 were deleted as they did not fit the factor structure obtained after conducting factor analysis. The final questionnaire consists of 32 items in all.

KMO is a measure of sampling adequacy for conducting factor analysis. Kaiser (1974) recommended that KMO must have a minimum value of 0.5, any value less than 0.5 renders factor analysis as a futile tool to be used (Williams, Brown & Onsmann, 2010). KMO value for the scale is .592, which is slightly above the minimum cut off level of .5, thereby making it possible to use factor analysis.

Factor naming is an important task, as it reflects the essence of what the individual items under the factor are trying to measure. Factor naming should be appropriate so as to justify the nature of items grouped together under a common factor. As a result, during the course of this study, opinion of a few subject matter experts was sought in this regard. After a lot of deliberation, a consensus was arrived at and five factors were named as Appropriateness, Fearlessness from Change, Change Preparedness, Change Valence and Management Support. The reliability of these five factors of Managing Organisational Change has been assessed using the Cronbach Alpha coefficients, having values of 0.89, 0.86, 0.74, 0.78 and 0.68 respectively. These values are above the acceptable limit of 0.70 (Bland & Altman, 1997), thus, the items of five factor structure are reliable.

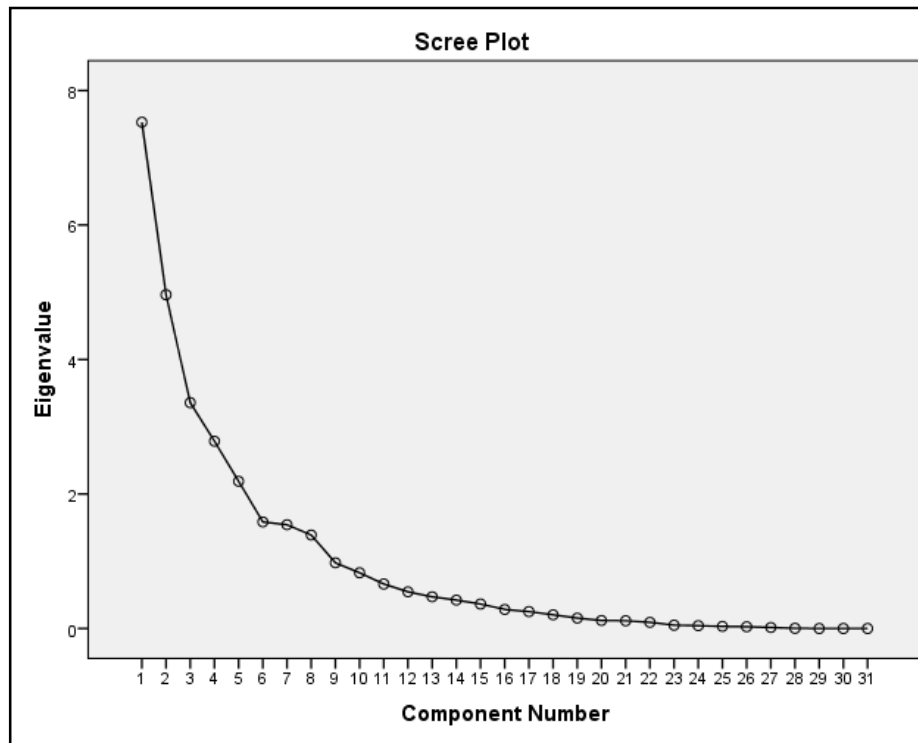


Figure 1: Scree Plot for Managing Organisational Change Scale

Factor Names	Items	Cronbach's Alpha
Appropriateness	11	.895
Fearlessness From Change	8	.861
Change Preparedness	6	.746
Change Valence	5	.783
Management Support	2	.686

Table 2: Factor Naming and Reliability for Managing Organisational Change Scale

The resultant five factors of Managing Change have been explained below.

4.1. Factor 1: Appropriateness

It represents employee's 'perception regarding legitimacy of an organisational change (Holt et.al, 2007 p. 241). The proposed change must seem appropriate or much needed to the employees. A change initiative must be backed by a strong reason. Forcing upon a change might prove to be detrimental for the management. Appropriateness of change also implies that a change must match the organisational vision and must lead to larger good for all within the organisation. In this study appropriateness has been measured with 11 items like 'There are legitimate reasons for us to make changes' and 'Change is always a good strategy for the organization'

Rotated Component Matrix^a					
	Component				
	1	2	3	4	5
APPROPRIATENESS					
Q1	0.81			0.32	
Q2	0.68		0.37		
Q3	0.76				
Q4	0.74				
Q5	0.80				
Q6	0.54			0.41	
Q7	0.50	0.42			
Q8	0.84		0.38		
Q9	0.76				
Q10	0.43		0.39		
Q11	0.64			-0.32	0.45
FEARLESSNESS FROM CHANGE					
Q12		0.54		0.39	
Q13		0.80			-0.35
Q14		0.79			-0.32
Q15		0.77			
Q16		0.59	-0.60		
Q17		0.62			0.42
Q18		0.74			
Q19		0.70			
CHANGE PREPAREDNESS					
Q20		0.31	0.57		
Q21			0.54		
Q22		0.37	0.43	0.33	-0.50
Q23			0.44	0.39	
Q24			0.86		
Q25			0.81		
CHANGE VALENCE					
Q26				0.90	
Q27	0.30			0.57	
Q28		0.36		0.72	
Q29				0.65	0.48
Q30		0.35		0.55	
MANAGEMENT SUPPORT					
Q31			0.55		0.60
Q32					0.88
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization. ^a					
a. Rotation converged in 8 iterations.					

Table 3: Factor Loadings for Managing Organisational Change Scale

4.2. Factor 2: Fearlessness of Change

It implies individual's ability to be free of apprehensions while encountering changes at workplace. Fear of change leads to negative attitude towards change thereby, impeding the process of change. Fearlessness of change would lead to positive attitude towards change, it would also enable employees to be determined and patient during tough time of organisational change. This factor has been measured with the help of 8 items like 'I feel anxious when I hear about the impending changes at work' and 'I am skeptical of change when it comes to my work'

4.3. Factor 3: Change Preparedness

It implies the degree to which employees are ready and confident tackling the challenges during the course of change implementation or post implementation. Indian organisations have been found to be poorly prepared for implementing organisational change (Mathew & Kumar, 2005). Therefore, change preparedness is an important attribute for managing organisational change. Training is also an

important component of change preparedness. Training ensures employee participation by promoting communication related to change and enables them to share their views regarding the change process (Coyle-Shapiro, 1999). Change Preparedness has been measured with 6 items such as 'I received enough training to adapt to organisational change' and 'Once a change is implemented, I feel I can handle it with ease'

4.4. Factor 4: Change Valence

It refers to the extent to which an employee feels he or she will gain from the implementation of a proposed organisational change. The more employees feel a change is beneficial for them, the more eager they would be to implement it. Change valence leads to individual commitment towards change (Weiner, 2009). Thus, change related valence is important for successful implementation of organisational change, as leads to readiness and commitment towards change. Change valence has been measured with the help of 6 items like 'I think that the organization will benefit from changes' and 'When a change is implemented, I don't believe there is anything for me to gain'

4.5. Factor 5: Management Support

It refers to the extent to which employees feel the top management of the organisation is committed to and supports the proposed change. If the leadership of an organisation is committed to successfully carry on a change in an organisation, then it is a message for the employees that the change initiative is genuine and sincere effort to achieve a desired state. Lack of management support for organisational change may lead to lower employee commitment and readiness for implementing change. This factor has been measured with 2 items such as 'Importance of change has been stressed by every senior manager'

5. Conclusion

This study proposes that managing organisational change is a dynamic phenomenon, which is affected by the interplay of a number of factors. Employees perceptions towards change is an important individual level attribute that affects the rate of success of managing change at workplace. The study proposes a new scale incorporating a few employee related attributes that is likely to support in managing organisational change.

To ensure construct validity of the new scale factor analysis was conducted and underlying factor structure has been identified. Using factor analysis has helped in naming and defining of five factors which correspond to employee attributes that facilitate in managing organisational change.

Individual employees are the ones responsible for initiation and implementation of organisational change. Therefore, this new scale might be an important attempt to understand and assess employee related factors crucial for managing change in an organisation. This study is of help and interest for managers, researchers and organisational change consultants as it provides them insight into change specific employee attitudes. This scale would help change agents in assessing how employees feel about the proposed changes in the organisation and to take immediate steps required to successfully manage change. This study provides a framework to further explore the employee specific factors that support management of organisational change. It will prove to be handy in developing robust and valid scales for measuring employee specific factors related to change.

Like other research studies, this study also has certain limitations and shortcomings. Firstly, the scale proposed by the study measures only employee attributes related to managing change, whereas there are numerous other factors that aid in management of organisational change. Thus, this scale can be used along with other scales that measure other aspects of managing change. Secondly, further testing of the scale can be carried out with a larger sample size to replicate the results.

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