
**VALIDITY OF MIND-SET, READINESS TO CHANGE, AND ADAPTIVE
PERFORMANCE SCALE:
A TEST ON EXECUTIVES OF JAPANESE MNCs IN INDIAN WORKSPACE**

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Abstract

The issues of adaptive performance among the employees in MNCs had and have become much more relevant to explore, therefore the mindset of the employees and the readiness to changes obviously can provide an interesting insight on the behavior and cultural aspects of international business firms. It is pertinent that in the business arena of India, the Japanese firms are playing significant role. Therefore, the exploration and testing of research tools in the context of Japanese Business establishment is meaningful exercise for furthering research. We reconstructed the questionnaire by combining the existing scales for assessing the employees Mindsets, employee's readiness to change, and adaptive performance of the employees in the selected MNC located in India.

Key words: Reliability, Validity of Scale, Factor Structure Analysis, Renaming of Factors

1. Introduction-The Concept

'Mindset' Our mindset is nothing but our own perceptions, or our beliefs about our own abilities and qualities, such as; our intelligence, creativity or musicality (www.positivepsychologyprogram.com)ⁱ. 'Improvisation as a mindset for organizational analysis' in an article by Weick, emphasizes organizational theory as on order and control often handicaps theorists to understand the processes of creativity and innovation which include the undifferentiated use of concepts like flexibility, risk, and novelty; forced either-or distinctions between exploration and exploitation; focus on activities such as planning, visioning, and strategizing as sites where improvements are converted into intentions that await implementation; and reliance on routine, reliability, repetition, automatic processing, and memory as the glue that holds organization in place.ⁱⁱ The entrepreneurial mindset by McGrath. The authors, R G & MacMillan. I C (2000), describes that the entrepreneurial leadership is the most important job, although uncertainty cause many to freeze, but can be used to benefit as uncertain situations are full of new opportunities.ⁱⁱⁱ Dweck also proposed the

implicit theories that people hold for the nature and causes of intelligence have a number of implications, particularly for motivation to practice and learn (Dweck, C. S.2000)^{iv}.

‘Readiness for Change’ is a multi-level construct, a multi-contextual construct. In common parlance ‘readiness for Change’ is the ‘ability to continuously initiate and respond to change in ways that create advantage, minimize risk, and sustain performance’ (Rick, T.2013)^v. Person’s readiness to change fluctuates, and they may seem ambivalent about taking action. Readiness to change is a process to allow a person, team or organization to determine the potential commitment and acceptance to the effect of the success of the change being planned. Readiness to change allows person, team or an organization to understand the person or the people who would respond to the change. The concept of readiness to change comes from the Stages of Change Model, which shows how individuals are at different stages of change (www2.rcn.org.uk.com)^{vi}. Change readiness is nothing but an assessment of one’s own preparedness of the conditions, attitudes and resources needed for change to happen successfully (www.lencd.com)^{vii}.

Adaptive Performance

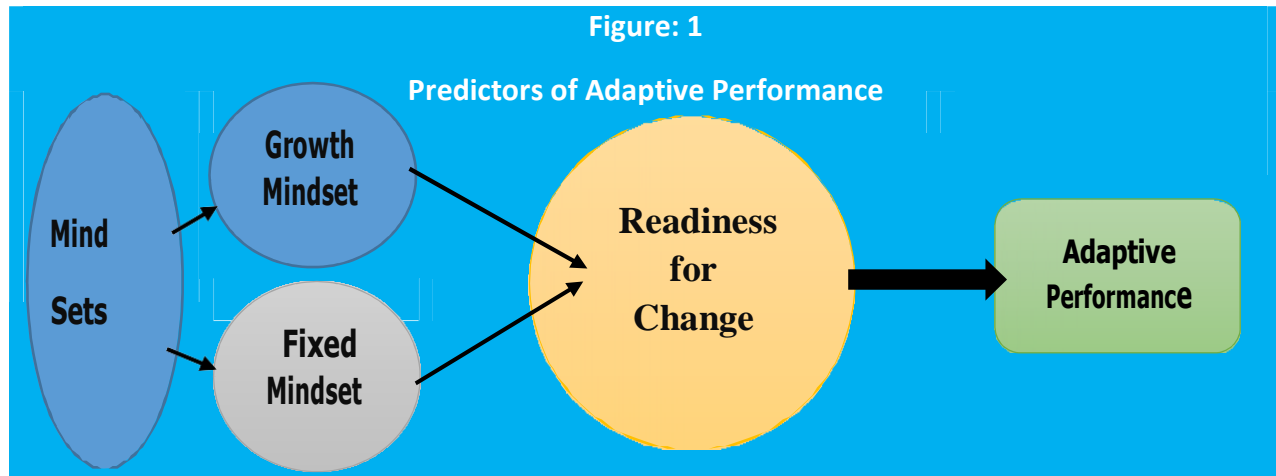
Adaptation refers to the changes that take place in individuals and in groups in response to environmental demands^{viii}. In one of complexity leadership theories, Lichtenstein. BB, et. al. (2006) propose an interactive perspective which develops on leading in a complex adaptive systems which traditionally, hierarchical views on adaptive leadership are less and less useful with the complexities of our modern world, must transition to new perspectives that account for the complex adaptive needs of organizations.^{ix} Within this different conceptions of adaptive need develop in today’s organizations, flexibility and adaptive leadership is essential^x which provide useful knowledge for future research and work-culture in organizations. The practice of mobilizing people to tackle tough challenges and thrive^{xi}, Heifetz, Linsky and Grashow (2014) shows the main message of adaptive practice is the idea that even a system is broken, it must be diagnosed and fixed by taking risks and challenging the status quo in order to provoke change.

2. Connections among Mindset, Readiness to Change and Adaptive Performance

Growth mindset and developing self-compassion identify the skills necessary for success, and finally understanding how the main effect of time revealed the readiness to change with the objective of performance change with adaptive in nature^{xii}. Expecting to lead to adaptive behavior, must improve an individual’s readiness to change and flexibility^{xiii}, requires to design the element of adaptive expertise^{xiv} and an effective approach to growing adaptability skills^{xv}, the process of ‘mind switching’ is that such frame changing which requires individuals to “recognize their enacted mindsets and then the adaptive performance”^{xvi}. Development of a

relationship among mindset, organizational influencers who are receptive to change and have a predisposition or propensity to engage in relationship with readiness to change^{xvii}.

The figure- 1 below explains about adaptive performance dependent on mindset.



Source: Researcher(s) of this (Potsangbam C. & Barman. A. 2016)

Readiness to change is mediating factor but as the outcome of readiness to change that create and adaptive behavior or performance. As Adaptability has become increasingly important in all organizational levels, readiness to change of the people and their mindset sets the nature of work which grows in complexity, change, and ambiguity^{xviii}, which thus produces effects on adaptive performance of the employees and employers of an organization.

(3) The objectives of the paper is

- (a) To check and articulate the reliability of the scale for measuring Mindset, Readiness to Change, Adaptive Performance of employees of the Japanese MNCs;
- (b) To re-examine the factor structure of employees mindset, readiness to change, and adaptive performance.

(4) Methodology

- (a) **Design of Study and Analysis-** We adopted for this study as the empirical design of research with a spirit of experimentation in the context of Japanese firms located in the different cities of India. A cross sectional experimentation of item(s), constructs, and scales is the best fit for this type of analysis, hence we proposed the design.
- (b) **The Respondents-** The study was conducted in the Japanese firms of located in the Hyderabad, Bangalore, and Bhubaneswar. We have distributed the questionnaire among the executives those who as associating with technical division and non-technical division of the concerned work units as stated in the table-3.

Categories of Respondents		City-wise Respondents	
Category	No of Respondents	City	No of Respondents
Technical	72	Hyderabad	39
Non -Technical	40	Bhubaneswar	20
Total	112	Bangaluru	53
		Total	112

© **The Components & Scale for Assessments-** To assess the Mindsets, Readiness for Change, and the Adaptive performance of we initially searched out literatures found well orchestrate scale are available. By considering the fitness to our exploration and sssessment we adapted Mindset Assessment tool constructed by Dweck, C. S. (2006)^{xix} which contained 8 items under the construct of “Growth Mind” and “Fixed Mind”. For assessing the “readiness for change”, a 30 (thirty) itemed scale^{xx} was adapted. Finally to assess employees adaptive performance robustly composed scale by 19 items of which details was found in the work of Charbonnier-Vorin, A. and Roussel, P. (2012)^{xxi}.

- (c) **Testing of Reliability-** The three itemized assessment scales were made to one final scale that demands reliability test. The logic behind the retesting of reliability is to checking up whether the precision of assessment in the context of the employees of the Japanese explains reliable or not. Therefore, we attempted to examine with the help of the operation of multi-content, cross sectional reliability, with assumption of getting robust reliability test for all components, constructs, and scale.
- (d) **Component Structure Analysis of Scale-** As these scale we are adopting for a full range of test of connection analysis in the context of employees or executives of Japanese firms located in Indian cities, so, to examine the organization of earlier orchestrated components whither remaining same or not even after the context change, we applied the analysis for factor analysis all three constructs.

5. The Results-Test(s) of Reliability

We examined the reliability on the self-reported perceptions on adaptive performance of the selected groups of employees in the metro cities of India. The test of reliability on adaptive performance among the 112 numbers of employees was measure with the help of 19 numbers of self-reporting statements. The result of the test indicated Chronbach alpha value is 0.666 with significance (P= 0.000).Among the total sample, the technical group of employees (N=72) for which the Alpha Value= 0.580 with significance P= 0.000. For the non-technical group (N=40), the reliability value Chronbach Alpha= 0.711 with Significance P= 0.000. From the selected place Hyderabad (N= 38) the reliability was tested comprising the significance value P= 0.000 with the Alpha Value= 0.667. Along with self-reported perceptions, the reliability test on the respondents of Bhubaneswar (N= 20), resultsthe Alpha Value= 0.786 along with standardized reliability coefficient value= 0.782 with significance value (P= 0.081).For the Bengaluru (N=

53), the reliability was tested and the results found as the Alpha Value= 0.560, with the significance value (P= 0.000).

The reliability test was examined for the items and the scales for assessing the growth mindset of the selected groups of employees from the metro cities of India with 8 numbers of self-reported perceptions and opinions taken from the 112 numbers of employees. The result of the test indicating Chronbach Alpha value is 0.836 with the significance, (P= 0.000). From the total sample for growth mindset assessment, the technical group (N= 72) comprising the Alpha Value= 0.753 with the significance value (P= 0.000) was positively found. For the non-technical (N= 40), the test results the significance (P= 0.000)with the Alpha Value= 0.860. The reliability test under growth mind from the selected place, i.e. Hyderabad having the significance value, P= 0.000 indicating the Alpha Value= 0.499 which is lower as compare with the other metro cities of India. For Bhubaneswar the result was fair getting the significance value, (P= 0.000)along with the reliability test valuing, Alpha Value= 0.726. As comparing with these two metro cities i.e., Hyderabad and Bhubaneswar, Bengaluru with the significance value, (P= 0.000) resulted with the higher reliability Alpha Value= 0.817.

The scale developed for readiness to change among executives of Japanese MNCs workforce established in India. Therefore, the scale adopted for measurement was examined as well as validating with the constructs being taken from (among the 112 numbers of employee was measure with the help of reliability test having 30 numbers from the respondents self-reporting statement getting the highest positive response as compare with the adaptive performance and growth mind, resulting the Alpha Value= 0.920 with significance value, (P= 0.000). The technical group from the change readiness comprising (N=72) respondents self-reporting statement resulted the Alpha Value= 0.916 with the significance value, (P= 0.000).As for the non-technical groups the assessment of respondents perception, the reliability test value is 0.925 and the significance value is (P= 0.000). The reliability test of change readiness of the employees from the selected places, say, Hyderabad indicating significance value, (P= 0.000) with the Alpha Value= 0.934. The employee's perception varied differently with different business establishment, therefore from the study among different selected places, Bhubaneswar being resulted the highest reliability value= 0.962 which the significance value, (P= 0.000) with the highest reliability coefficient standardized value= 0.965. For Bengaluru the test of reliability the Alpha Value is 0.867 with the significance value, P= 0.000.

Table- 1

Constructs	N	No. of Items	Inter-item Correlation (IIC)		Single Measure Intra Class Correlation (SMICC)	Average Measure Intra-Class Correlation (AMICC)	Significance	Reliability Coefficient	
			Min	Max				Alpha	Standardized
Adaptiveness	112	19	-	.558	.095	.666	0.000	.666	.664
Tech	72		-	.719	.068	.580	0.000	.580	.563
Non-Tech	40		-	.563	.115	.711	0.000	.711	.709
Hyderabad	38		-	.548	.095	.667	0.000	.667	.657
BHU	20		-	.891	.162	.786	0.081	.786	.782
Bengaluru	53		-	.748	.063	.560	0.000	.560	.535
Mindsets	112	8	.026	.758	.389	.836	0.000	.836	.824
Tech	72		-	.746	.276	.753	0.000	.753	.717
Non-Tech	40		.108	.769	.434	.860	0.000	.860	.852
Hyderabad	38		-	.456	.111	.499	0.000	.499	.497
BHU	20		-	.601	.249	.726	0.000	.726	.727
Bengaluru	53		.308	-.295	.358	.817	0.000	.817	.781
Change Readiness	112	30	-	.788	.278	.920	0.000	.920	.919
Tech	72		-	.838	.267	.916	0.000	.916	.920
Non-Tech	40		-	.811	.290	.925	0.000	.925	.918
Hyderabad	38		-	.929	.321	.934	0.000	.934	.922
BHU	20		-	.967	.456	.962	0.000	.962	.965
Bengaluru	53		-	1.000	.178	.867	0.000	.867	.870
Overall Items	112	57							

Summary on Reliability Analysis

The attempt for applying robust cross sectional reliability test(s) results displayed a very high level of reliability of items reliability, construct reliability, and the scale reliability in the context of technical and non-technical groups of employee in the Japanese firms located in the selected cities of India. On in the context of construct of mindset assessment in Hyderabad City (italics and Shadowed Row) in table explaining low reliability of items, constructs and scales but the same revealed high statistics and high level of significance for the cities of Bhubaneswar and the

Delhi indicating high level of reliability as well as applicability of scale in the context of future research. The low reliability of construct items under Mindsets for assessment needs a check for construct consistency on the respondents in terms of company or organization and the work setting under which the respondents are responding.

6. Analysis on Factor or Component Structure

Readiness to Change- The result of the factor analysis of the items in the scale was loaded in 5 constructs. The 5 loaded according to the factor analysis resulting (table-3, Components Matrix) constructs arrangement describing the readiness to change; i.e. **Readiness to Change**= Readiness for Action (RFA) + Confidence for Change (CFC) + Readiness for Practice (RFP) + Readiness for Relationship (RFR) + Control and Credibility (C&C). Our analysis revealed, readiness to change is a multi-component construct and out of which the readiness for action and the confidence for change are the two significant criteria for measurement.

Component Analysis of Mind Set-The components of mindset are two types as explained by Dweck (2006)^{xxii}. In his measurement scale there are 4 item for measuring the Growth Mind and 4 items were there for measuring the fixed mind (Table-2). Factor analysis were applied from on the basis of data revealing the same way of loading of items in the context of employees mindset of Japanese firms without repeating construction of Dweck but only with the difference of eigen values of factor analysis.

Components of Adaptive Performance Measure-The scale items for measuring adaptive performance factorized again to examine the factor locations and structure in the context of this study. The result of factor analysis revealed 7 (seven) factors from the analysis based on the collected data. Adaptive Performance constructs in the table-4, emerged constructs were given name based on the key items conglomeration through factor loading. Thus, the Adaptive Performance = (Action Composure + Willingness for Hard Labour+ Focus on Strengths+ Work Orientation+ Promptness+ Work efficacy + Optimum Hope) of individual(s) in an organization. These factors can be operationalized for assessing the adaptive performance of individuals.

7. Findings

We can summarize the outcomes of the all tests and analysis made for achieving the goals of the paper. The research could fulfill the objective set and finally declared that the scale is reliable for assessing in the context of employees of corporation in Indian work environment.

This has given a meaningful results in reliability of the contents, constructs and concepts of employees' mindsets, readiness to change, and adaptive performance in the context of the organization of firms located in the Indian cities, and also validate the items under constructs are

useful for assessing the technical and non-technical groups of employees or executives in the environment of MNCs operating in India.

The reliability analysis was done for contents, constructs and concepts of employees' mindsets, readiness to change, and adaptive performance in the context of organization of firms located in the Indian cities, and also validated the items under constructs are useful for assessing the technical and non-technical groups of employees or executives in the environment of MNCs operating in India. The results that the adapted scale for measuring mindset, readiness to change and the adapted scales for adaptive performance of executives in Japanese revealed reliable in the context of employees of technical, non-technical groups of employees, and in the context of cities of India, for MNCs operating in Indian cities.

8. Research Implications and Conclusion

Furthering the usability of the scales, the factor analysis of data applying the scales and their items may generate well-structured and validated scales for executives. Thus, the re-validated tools in the context of employees of MNC work settings may be used for conducting empirical research, for consulting, and for practical behavioral and organizational studies. Particularly, for conducting study for correlations and structural equation modeling with the constructs' path analysis these items/scales may serve as reliable tool. The study claims that the evidence of scales on readiness to change, mindset, and adaptive performance with an analysis for validity of scales in the context of multi-group and cross sectional sample is rare, thus, this scale has fill the gap of it.

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Appendix: Table s

Table- 2

Rotated Component Matrix^a		
Mindset	Eigen Value	Items
(1) Fixed Mind	.625	To tell the truth, when I work hard, it makes me feel as I'm not very smart.
	.786	You can learn new things, but you cannot really change your basic level of intelligence.
	.834	I like my work best when I can do perfectly without any mistakes.
	.712	I like my work best when I can do it really well without too much trouble.
(2) Growth Mind	.818	I like work that I'll learn from even if I make a lot of mistakes.
	.854	I like my work best when it makes me think hard.
	.891	When something is hard, it just makes me want to work more on it, not less.
	.650	No matter how much intelligence you have, you can always change it a good deal
Kaiser-Meyer-Olkin Measure of Sampling Adequacy= 0.801; 2 Components Extracted ; Extraction Method: Principal Component Analysis ; Rotation Method: Varimax with Kaiser Normalization; a. Rotation converged in 3 iterations.		

Table-3

Components	Eigen values	Component Matrix ^a
(1) Readiness for Action (RFA)	.692	I learn new ways to do my job better in order to collaborate with such people.
	.625	I willingly adapt my behavior whenever I need to do in order to work well with others or colleagues.
	.599	I am on the lookout for the latest innovations in my job to improve the way I work.
	.593	I try to understand the viewpoints of my counterparts to improve my interaction with them.
	.457	I undergo training on a regular basis at or outside of work to keep my competencies up to date.
	.456	I analyze possible solutions and their implications quickly to select the most appropriate one.
	.454	I use a variety of sources/types of information to come up with an innovation solution for work.
	.449	I develop new tools and methods to resolve new problems and work.
(2) Confidence for Change (CFC)	.623	I look for every opportunity that enables me to improve my performance (training, group project, exchanges with colleagues, etc.).
	.577	I am able to achieve total focus on the situation to act quickly at work.
	.569	I keep my cool in situations where I am required to make many decisions.
	.527	I quickly decide on the actions to take to resolve problems/work.
(3)Readiness for Practice (RFP)	.527	I look for situations by having a calm discussion with colleagues.
	.412	I prepare for change by practicing in every project(s) or assignment that enables me to do so.
	.267	I easily reorganize my work to adapt to the new circumstances.
(4) Readiness for Relationship (RFR)	.528	Developing good relationships with all my counterparts is an important factor of my work effectiveness.
	.400	Within my department/work units, people rely on me to suggest new solutions.
(5) Control and Credibility (C&C)	.586	My colleagues ask for my advice regularly when situations are difficult because of my self-control.
	.430	I use a variety of sources/types of information to come up with an innovation solution for work.
5 Component Extracted;Extraction Method applied: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.		

Table-4

Rotated Component Matrix ^a		
Components	Eigen Values	Items
(1) Action Composure	0.767	I look in unusual places to find solutions
	0.743	I don't perform well when there are vague expectations and goals
	0.583	My tendency is to focus on what can go wrong
	0.669	When people need solutions to problems, they call on me
	0.712	I'm restless and full of energy
	0.749	My strength is to find ways around obstacles
	0.619	I can't stand to leave things unfinished
	0.820	I prefer the main highway to the back road
(2) Willingness for Hard Work	0.709	My faith in my abilities is unshakable
	-0.706	I prefer work that is similar and in my comfort zone
	0.556	I can handle anything that comes along in the way to finish
	0.495	I push myself to the maximum
	0.500	When an issue is unclear, my impulse is to clarify it right away
	0.553	It pays to stay with the tried works and true
(3) Focus on Strength	-0.600	The things rarely work out the way I want them to complete
	0.789	I focus on my strengths not my weakness
	0.739	I'm a vigorous and passionate person
(4) Work Orientation	-0.853	I'm more likely to see problems than opportunities
	0.899	If something's broken, I try to find a way to fix it
	0.876	I get impatient when there are no clear answers
	0.861	I'm inclined to the establish work routines and stay with them
	0.550	At my workspace, I can make any situation work for me
(5) Promptness	0.385	I feel I have a hard time when relaxing and doing nothing
	0.746	I prefer the familiar than the unknown
	0.832	I rarely second-guess myself
(6) Work Efficacy	0.645	I can't wait for the day to get started
	0.736	If something can go wrong, it usually does
	0.843	When I get stuck I'm inclined to improve solutions
(7) Optimum Hope	-0.548	I get frustrated when I can't get a grip on something
	0.639	I believe in not getting your hopes too high

Kaiser-Meyer-Olkin Measure of Sampling Adequacy= 0.811; Extraction Method: Principal Component Analysis. ; Rotation Method: Varimax with Kaiser Normalization.; a. Rotation converged in 23 iterations.