



## **INTEGRATED MODEL OF HUMAN RESOURCES MANAGEMENT, KNOWLEDGE MANAGEMENT, AND INTELLECTUAL CAPITAL FOR ORGANIZATIONAL AND INDUSTRIAL GLOBAL ECONOMY**

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### **Abstract: Purpose:**

A review and analysis has to be done in finding and implementation of Human Resource Management in the new organisational and industrial economy. Important concerns in the present study involves the development of integrated model of Human Resource Management in new organisation and industry by focusing on the integration of the Intellectual Capital, Human Capital and Knowledge Management in the strategies of the industrial organization, analyse the field of Knowledge Management and Intellectual Capital with respect to Human Resource Management in the new organisational and industrial economy. Qualitative and quantitative analysis of the new organisational and industrial economy has to be identified and analysed. Organizational performance is also analysed. Many research studies have been carried out pertaining to human resource management with respect to economical development. Organizational performance excellence is checked.

Organizational performance can be checked by two indicator they are Efficiency and Effectiveness. Effectiveness performance indications measures company's progress towards goals achievement, mission fulfilment and overall performance of organization. Efficiency is another performance indicator which measure organization relations pertaining to input, output, and successful conversion of input to output. Reliability Statistics for one of the activities i.e organizational performance is being done, the results obtained are Cronbach's Alpha =0.533, Cronbach's Alpha Based on Standardized Items = 0 .431, N of Items = 33. As we see the values in Item-Total Statistics chart, Cronbach's Alpha for if each item is deleted from total 33 items, the average Cronbach's Alpha of the remaining 33 items does not have large variation. Cronbach's Alpha is near to 0.533 and 0 .431 which is good and acceptable. As per Reliability Statistics, Item Statistics (Mean=4, SD< 1), Inter-Item Correlation Matrix (Correlation = < 1 and + correlated between inter item), Summary Item Statistics, Item-Total Statistics and Scale Statistics. All the 33 items which are considered for regression analysis are good correlated. Some of the items are excluded.

### **Keywords:**

are Human Resources Management (HRM), Knowledge Management (KM) and Intellectual Capital (IC), Standard deviation (SD) N-(number).

### **Introduction**

In order to understand the organizational performance, the qualitative parameters are to be identified. As per [1] Bounds at all, 2005; Robbins, 2000, Common measures of the organizational performance are effectiveness and efficiency. according to [2]Mouzaz (2006), each of these terms have their own distinct meaning. Most organizations assess their performance in terms of effectiveness. Their main focus is to achieve their mission, goals and vision. [3] At the same time, there is plethora of organizations, which value their performance in terms of their efficiency, which relates to the optimal use of resources to achieve the desired output (Chavan, 2009). In this models Integrated Organizational economy is being interrelated to HRM policy activities, HRM output, KM, IC, Organizational performance etc. As per Guest [4] model states on set of integrated HRM practices will leads to superior individual and organizational performance. It shows significant difference of HRM from PM. It holds that HRM strategies like differentiation, innovation, the focus on Quality and cost reduction will lead to practices like better training, appraisal, selection, rewards, job designs, involvement, and security leading to more quality outcomes; commitment and flexibility. It will then affect performance in



that productivity will increase; innovation will be achieved as well as limited absences, labor turnover, and conflict or customer complaints.

## I. Literature

[4] Nunnally and Bernstein (1994), McIver and Carmines (1981), and Spector (1992) discuss the reasons for using multi-item measures instead of a single item for measuring psychological attributes. They identify the following: First, individual items have considerable random measurement error, i.e., are unreliable. Nunnally and Bernstein (1994) state, "Measurement error averages out when individual scores are summed to obtain a total score" (p. 67). Second, an individual item can only categorize people into a relatively small number of groups. An individual item cannot discriminate among fine degrees of an attribute. For example, with a dichotomously scored item one can only distinguish between two levels of the attribute, i.e., they lack precision. Third, individual items lack scope.

[5] McIver and Carmines (1981) say, "It is very unlikely that a single item can fully represent a complex theoretical concept or any specific attribute for that matter" (p. 15). They go on to say, The most fundamental problem with single item measures is not merely that they tend to be less valid, less accurate, and less reliable than their multi item equivalents. It is rather, that the social scientist rarely has sufficient information to estimate their measurement properties. Thus, their degree of validity, accuracy, and reliability is often unknowable. (p. 15).

[6] Blalock (1970) has observed, "With a single measure of each variable, one can remain blissfully unaware of the possibility of measurement [error], but in no sense will this make his inferences more valid" (p. 111).

[7] Common measures of the organizational performance are effectiveness and efficiency (Bounds at all, 2005; Robbins, 2000). For managers, suppliers and investors these two terms might look synonymous, yet,

[8] according to Mouzas (2006), each of these terms have their own distinct meaning. Most organizations assess their performance in terms of effectiveness.

[9] Their main focus is to achieve their mission, goals and vision. At the same time, there is plethora of organizations, which value their performance in terms of their efficiency, which relates to the optimal use of resources to achieve the desired output (Chavan, 2009)

[10] According to American Management Association Global Study of Current Trends and Future Possibilities 2007- 2017, a high-performance organization maintain consistent strategies that closely bind with organization's philosophy and believes. Such organizations implement strong customer-oriented policies (American Management Association, 2007).

[11] Customer information is the main factor for developing new products Khademfar and Amiri (2013) suggest a model of high-performance organization, which maintains five major approaches: Strategic, Customer, Leadership, Processes and Structure and, Values and Beliefs. Strategic approach takes the organization to a higher plane of maturity with a clear vision where the entity is going. Customer approach strives for client loyalty, whether Leadership approach is associated with management knowledge to transfer the strategy to employee level, which will have a direct impact on their behavior and believes. The fourth block is associated with organization's processes and structure. High performance organization should strive for implementing innovative policies to support the strategy. The last component of the model is Value and Believes which translates into organizations ability to implement the strategy. All pieces are linked to each other, since change to one provides changes in the others.

As per Devanna et. al [12] the Michigan model focuses on hard HRM. It holds that people should be managed like any other resources and so obtained cheaply, used sparingly, developed and exploited fully. It also emphasized the interrelatedness of HRM activities. According to this model, selection, appraisal, development and rewards were geared towards organizational performance.

As per Ovidiu Nicolescu [13] preliminary considerations are taken, Human Resource Management is among the fields where managerial practices and theoretical-methodological research have been going

through extensive development during the last decades. It is a natural situation generated mainly by the following variables:

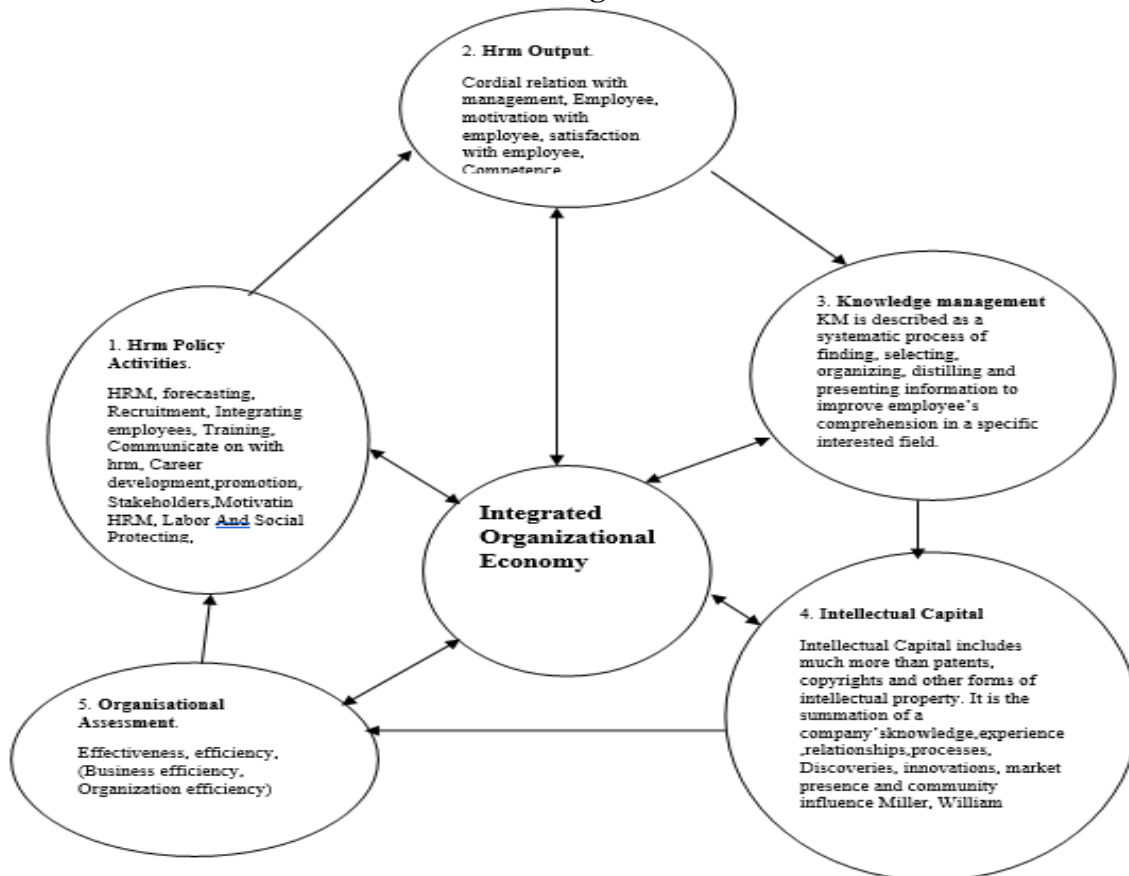
- The increase in the training level, the work and the creation potential of human resources, at very high levels, difficult to imagine not very long ago.
- Awareness for the decisive impact that human resources have on the functionality of management and the performance of organizations, whatever their branch or size;
- The start of the knowledge revolution, whereby the new economy is made, which “pushes” knowledge and the human resource to the foreground of all economic-social activities, as main generator, holder and user of knowledge.

Hameed [14] noted that KM is described as a systematic process of finding, selecting, organizing, distilling and presenting information in a way that improves an employee’s comprehension in a specific area of interest. KM helps an organization to gain insight and understanding from its own experience. Specific KM activities help focus the organization on acquiring, storing and utilizing knowledge for such things as problem solving, dynamic learning, strategic planning and decision making. Intellectual Capital includes much more than patents, copyrights and other forms of intellectual property. It is the summation of a company’s knowledge, experience, relationships, processes, discoveries, innovations, market presence and community influence Miller, William [15]. As per Guest [16] model states on set of integrated HRM practices will leads to superior individual and organizational performance.

As per Guest model Below is model defined for

**Integrated Model of Human resources management, Knowledge management, and Intellectual capital for organizational and industrial global economy**

**Fig-I**





### 1.0 PROCEDURE FOR ANALYSIS OF INTEGRATED MODEL IS AS FOLLOW:

Regression is carried out based on the Likert's five point scale for each and every activity technique, for the assessment of HRM and for the economical development of organization with respect to human capital and knowledge management For carrying out test the statistical tool is used. [17] Reliability analysis allows to study the properties of measurement scales and the items that compose the scales. The Reliability Analysis procedure calculates a number of commonly used measures of scale reliability and also provides information about the relationships between individual items in the scale. Intra class correlation coefficients can be used to compute inter-rater reliability estimates.

Using reliability analysis, we can determine the extent to which the items in the questionnaire are related to each other, we can get an overall index of the repeatability or internal consistency of the scale as a whole, and we can identify problem items that should be excluded from the scale.

Statistics. descriptive for each variable and for the scale, summary statistics across items, inter-item correlations and covariances, reliability estimates, ANOVA table, intra class correlation coefficients, Hotelling's T2, and Tukey's test of additivity.

Models. The following models of reliability are available:

- Alpha (Cronbach). This model is

Cronbach's alpha (Cronbach, 1951) is a measure of reliability. More specifically, alpha is a lower bound for the true reliability of the survey. Mathematically, reliability is defined as the proportion of the variability in the responses to the survey that is the result of differences in the respondents. That is, answers to a reliable survey will differ because respondents have different opinions, not because the survey is confusing or has multiple interpretations. The computation of Cronbach's alpha is based on the number of items on the survey ( $k$ ) and the ratio of the average inter-item covariance to the average item variance.  $\alpha = k(\text{cov}/\text{var}) / [1 + (k-1)(\text{cov}/\text{var})]$ .

Under the assumption that the item variances are all equal, this ratio simplifies to the average inter-item correlation, and the result is known as the Standardized item alpha (or Spearman- Brown stepped-up reliability coefficient).

$$\alpha = k r / [1 + (k-1)r]$$

The value of Cronbach's alpha is reported in the Reliability Statistics table. Notice that the Standardized item alpha is computed only if inter-item statistics are specified. And remember, the coefficient of 0.898 reported for these items is an estimate of the true alpha, which in turn is a lower bound for the true reliability. For comparison, several other reliability measures are available.

The item-analysis output from SPSS for the multi-item scale of various activities of HRM, organizational performance and knowledge management. A description of the sections and related terms are as follows:

1. Statistics for Scale—These are summary statistics for the items comprising the scale.
2. Item means—These are summary statistics for the individual item means.
3. Item Variances—These are summary statistics for the individual item variances.

Inter-Item Correlations—This is descriptive information about the correlation of each item with the sum of all remaining items. The mean of the inter-item correlations (.3824) is the  $r$  in the  $\alpha = k r / [1 + (k-1)r]$  formula where  $k$  is the number of items considered.

5. Item-total Statistics—

This is the section where one needs to direct primary attention. The items in this section are as follows:

- a. Scale Mean if Item Deleted—Excluding the individual item listed, all other scale items are summed for all individuals and the mean of the summated items is given

- b. Scale Variance if Item Deleted—Excluding the individual item listed, all other scale items are summed for all individuals and the variance of the unmated items is given.

corrected Item-Total Correlation—This is the correlation of the item designated with the summated score for all other items. A rule-of-thumb is that these values should be at least.

- d. Squared Multiple Correlation—This is the predicted Multiple Correlation Coefficient squared obtained by regressing the identified individual item on all the remaining items.



e. Alpha if Item Deleted—This is probably the most important column in the table. This represents the scale's Cronbach's alpha reliability coefficient for internal consistency if the individual item is removed from the scale.

f. Alpha—The Cronbach's alpha coefficient of internal consistency. This is the most frequently used Cronbach's alpha coefficient's. Standardized Item Alpha—The Cronbach's alpha coefficient of internal consistency when all scale items have been standardized. This coefficient is used only when the individual scale items are not scaled the same. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Based upon the formula  $\alpha = rk / [1 + (k - 1)r]$  where k is the number of items considered and r is the mean of the inter-item correlations the size of alpha is determined by both the number of items in the scale and the mean inter-item correlations. George and Mallery (2003) provide the following rules of thumb: " $\alpha > .9$  – Excellent,  $\alpha > .8$  – Good,  $\alpha > .7$  – Acceptable,  $\alpha > .6$  – Questionable,  $\alpha > .5$  – Poor, and  $\alpha < .5$  – Unacceptable" (p. 231). While increasing the value of alpha is partially dependent upon the number of items in the scale, it should be noted that this has diminishing returns. It should also be noted that an alpha of .8 is probably a reasonable goal. It should also be noted that while a high value for Cronbach's alpha indicates good internal consistency of the items in the scale, it does not mean that the scale is one-dimensional.

Total about 33 items were taken for the analysis of organizational performance some of them which are mentioned are as follows Organization Performance, Measuring Efficiency, Business efficiency, Performance of input out ratio, identification of efficient process to convert input output,

**4.0 The Hypothesis** defined for organizational performance based on As per [1] Bounds at all, 2005; Robbins, 2000, Common measures of the organizational performance are effectiveness and efficiency. is

**Hypothesis: Organizational performance excellence has to be checked, Organizational performance excellence can be checked by two indicator Efficiency and Effectiveness.**

**5.0 Design/methodology/approach:** Research methodology consists of research design, sample design, sources of data, selection of data, various designs and techniques, activities, methods and procedure used for analyzing the data. Vital objective of the present research is to study the extent of implementation of defined HR method, procedure. The objective of research design is to determine which activities, methods, techniques and procedure is acceptable and preferred in evaluating the Human Resource Management.

## 6.0 Findings:

Organizational performance was analysed by using SPSS tool. The two indicators used are efficiency and effectiveness. The various items used for organizational performance were analyzed and the quantitative values obtained are acceptable. All the items which are considered for regression analysis are good correlated.

Effectiveness performance indications measures company's progress towards goals achievement, mission fulfillment and overall performance of organization. Efficiency is another performance indicator which measure organization relations pertaining to input, output, successful conversion of input to output. Reliability Statistics for fifteenth activity i.e. organizational performance Cronbach's Alpha = 0.533, Cronbach's Alpha Based On Standardized Items = 0.431, N of Items = 33. As we see the values in Item-Total Statistics chart, Cronbach's Alpha for if each item is Deleted from total 33 items, the average Cronbach's Alpha of the remaining 33 items does not have large variation. Cronbach's Alpha is near to 0.533 and 0.431 which is good and acceptable. As per Reliability Statistics, Item Statistics (Mean=4, SD< 1), Inter-Item Correlation Matrix (Correlation = < 1 and + correlated between inter item), Summary Item Statistics, Item-Total Statistics and Scale Statistics. All the 33



items which are considered for regression analysis are good correlated. Some of the items are excluded i.e Organization Performance, Performance of input out ratio, Management and business

**Summary of the findings are as follows in the tables given below**

**Table-I Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximim/minimum	Variance	No. of items
Item mean	4.697	4.400	4.800	0.4001	1.091	0.020	33
Inter- item correlations	.0222	-.612	1.000	1.612	-1.633	0.2677	33

**Table-II Item Total Statistics**

	Scale mean if item deleted	Scale variance if item deleted	Corrected item total-correlation	Cronbach's Alpha if item deleted
Measuring efficiency	150.2000	19.700	.151	.524
Business efficiency	150.2000	19.200	.281	.511
Identification of efficient process to convert input output	150.2000	19.200	.281	.511
Efficeient conversion of input out put	150.2000	18.700	.414	.497
Using optional process implementaion	150.2000	17.300	.323	.489
To maximise output total productivity maintaince system	150.6000	16.300	.471	.456
Suggest limit six losses	150.6000	17.800	.252	.505
Reduced yield from startup	150.4000	22.300	-.406	.588
Stable production	150.4000	19.800	.082	.532
Process defects	150.2000	19.700	.151	.524
Reduced speed	150.4000	19.800	.082	.532
Idling and minor stoppages	150.2000	24.200	.151	.524
Setup and adjustment	150.4000	17.800	.082	.532
Organisation efficiency	150.2000	18.700	-.0886	.619
Organisation structure and culture community	150.2000	19.20	.519	.476
Productivity,profitabilty,quality	150.4000	17.800	.414	.497
Measuring organisation effeiciency	150.2000	19.200	.281	.511
Organisation strategy	150.4000	19.800	.519	.476
Corparate structure design	150.2000	19.200	.281	.511
Development of task effectiveness	150.2000	21.700	.082	.532
	150.2000	21.700	.281	.511
Effect has relation on output outcome impact	150.2000		-.336	.571
Impact on sale creative added and innovative reduction	150.2000	19.200	-.336	.571



Effect of organisation can be checked	150.2000	19.700	.281	.511
productivity	150.4000	19.800	.281	.511
quality	150.2000	21.700	.151	.524
delivarable	150.6000	17.300	.082	.532
Safety, social, response	150.2000	21.700	-.336	.571
Total maintaience system	150.2000	24.200	.323	.619
maintaience	150.2000	18.700	-.336	.497
Prevention system	150.4000	17.800	-.886	.476
Maintaineblity improvement	150.4000	17.800	.414	.476
Total participation of employee	150.2000	19.200	.519	.511

**Table-III Scale statistics**

Mean	Variance	Standard Deviation	No. of Items
1.5500E2	20.5000	4.52769	33

**Table-IV Case process summary**

	N	%
Cases Valid	5	100.0
Excluded	0	0.0
Total	5	100

**Table-V Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha based on standardized Item	No. of Items
.533	.0431	33

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