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Dynamics of Human Resources Management Practices and Knowledge Management Processes in Service Sector: An Empirical Study

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Abstract:
This research attempts to establish a link between human resource management practices and knowledge management processes in knowledge intensive service sectors. The key dimensions of these three research constructs have been identified. Metric has been developed for the empirical investigation of the relationships between these constructs. Structural Equation Modelling (SEM) using partial least square techniques has been used to test these hypotheses with a sample size of 491 knowledge workers (330 - Higher educational institutions and 161 from the IT companies) to investigate the empirical relationships between the factors. Among 20 hypotheses being tested 14 were accepted and the rest were rejected. The testing of the hypotheses enabled the identification of the key dimensions of HRM practices which have bearing on KM processes. Implications of the study would enable the strategic planning managers to make their human resource management practices more effective so as to enhance the knowledge management processes.

Keywords: *Human resources management practices, knowledge management processes, it companies, higher education.*

1. Introduction

Two major knowledge intensive service sectors in India are Educational Institutions and the IT companied which contribute significantly to the national GDP. Globalization has imposed a strict adherence to the international quality standards and Human Resource Management (HRM) is now one of the major disciplines of both academic and research interest.

In the context of knowledge intensive service organizations, Human Resource Management Practices (HRP)have a major role to play in the Organizational Performance. Many researchers have undertaken both qualitative as well as quantitative studies on the direct impact of HRP on the KM (e.g. Chen & Huang, 2009; Camelo-Ordaz et al., 2011; Jimenez-Jimenez & Sanz-Valle, 2013 and Kesti & Syväjärvi, 2015). Knowledge intensive service organizations in their group include: educational institutes, hospitals, software industries, legal consultants, banks, marketing services, consultancy services etc. The major resources in such organizations will be intellectual capital, or more specifically, the knowledge residing in the minds of the employees of such organizations. While Knowledge Management (KM) is the enabler for tapping such knowledge which is stored in the minds of the people in the organization and making it available for everyone to use for the organizational growth, neither the influence of HRP on the KMP nor the influence of KMP on the ORP has been studied in depth to the extent required. This study is important because a lot of resources have been invested on the development of KMP so there is a need for its worth justification and it can be only through the assessment of its contribution to the ORP. It is under this backdrop of the importance gained by the knowledge as a 'strategic asset' in the knowledge intensive service organizations, this research has been conducted to assess in quantitative terms the impact made by the KMP as a mediator between the HRP and ORP.

2. Literature Review

2.1. Human Resource Management Practices (HRP)

HRP is a multi-dimensional construct which encompasses a large number of strategic processes and practices. It is a known fact that HRM as such has been dealt by many authors as normative models (Ogedegbe, 2014). Owing to the challenges posed by IT revolution where customers are very well informed and know what quality of service to expect for the price paid, the focus of research has shifted mainly on the Organizational Performance, which is to be achieved mainly through human resources (Becker et al., 2006). Thus, there have been many studies which have made attempts to test the significance of relationship between HRP and KMP (Bratton & Gold, 2007; Wattanasupachoke, 2009; Ogunyomia & Bruningb, 2016).

Identifying the dimensions which best represent the research construct of HRP is an ongoing process. Research literature is rich with articles which propose many different dimensions and the selection of these dimensions are purely context based and time dependent. Through the process of AHP a set of dimensions has been identified in this research for the research construct HRP, which are presented below (Table 1).

Dimension	Author, Year	Description	Sample Item
1.Recruitment & Selection	Shaw and Fairhurst, (2008), Anantatmula & Shrivastav (2012) and Valentine & Powers (2013)	It is the complete process from identification of need for a job to the attracting of the talent, screening, selection and induction of the most suitable person for the job.	The recruitment processes in this organization are impartial.
2.Compensation & Reward	Armstrong (2005), Bob (2011), Pearce (2010), Anyebe (2003)	This constitutes measuring job values, designing and maintaining pay structures, paying for performance, competence and skill, and providing employee benefits	Our organization has an incentive scheme for encouraging employee participation in quality improvement.
3.Performance Appraisal	Randell, (1994), Armstrong and Baron (2005)	It is a systematic evaluation of individual performance linked to workplace behavior, requirements, objectives, accomplishments, targets, and/or specific criteria of the organization and is undertaken using a performance management system.	Performance appraisal is done by the immediate supervisor and scrutinized by the higher authorities.
4. Teamwork	Pitt (2008), Scarnati (2001), Harris & Harris (1996), Fisher, Luca & Tarricone (2001)	Teamwork refers to the process of establishing and developing a greater sense of collaboration and trust between team members. Interactive exercises, team assessments, and group discussions enable groups to cultivate this greater sense of teamwork	There are specialized teams for various tasks.
5. Training & Development	Mayo (2001), Foley (2004), Verma and Dewe, (2004), Pearce & Robinson (2009), Kougias et al. (2013).	This involves an expert working with trainees to impart knowledge, skill, and attitude so that they become more effective in their job with complete up to data knowledge.	Training and development programmes are designed based on the needs from time to time and institutional objectives in mind.

Table 1: The Dimension, Meaning, Literature Support, and the Sample Item - HRP

2.2. Knowledge Management Processes (KMP)

Learning is gaining an importance more than ever before because the World economy has shifted towards the concept of knowledge as a strategic asset (Walczak, 2005). Ahmed et al., (2015) have observed that the most efficient strategic planners are on the lookout for the most recent knowledge in their area of business research so that they can surpass the expectations of their customer. Disappointments connected with past administration choices has inspired managers to look for the most modern information which can be transformed into knowledge.

Intangible assets mainly in the form of intellectual capital play a key role in helping organizations achieve higher level of organizational performance (Jimenez-Jimenez &Sanz-Valle, 2013). Knowledge has already taken over other forms of resources such as land, labour, and capital (Rašula et al., 2012). While it comes to the measurement issue of KMP the following dimensions become important in terms of the service sectors in general and the IT and higher Education sectors in particular (Currie and Kerrin, 2003; Cabrera et al., 2006; Remco and Dennis, 2009 and Senge, 2012). Through the process of AHP a set of dimensions have been identified for this research, which are presented below (Table 2).

Dimension	Author, Year	Description	Sample Item
1. Knowledge Acquisition	Leonard-Barton (1992), Ulrich et al., (1993), Kim (1998), Senge (2012)	Knowledge acquisition is the process the company uses for obtaining new information and knowledge	Organization provides multiple sources of information to enable the faculty and the students to acquire knowledge.
2. Knowledge Distribution	Cabrera et al. (2006) Koffman and Senge (2012)	It comprises the dissemination of acquired knowledge between different individuals or units within a company. This process is principally accomplished through informal interactions among the employees of the company.	Organization has formal mechanisms to guarantee the sharing of best practices among different fields of the activity.
3. Knowledge Interpretation	Minbaeva (2005), MacKenzie et al., (2005) Remco and Dennis (2009)	Processes required in order that information is understood and assimilated by employees in order to transform it into a new common knowledge.	All organization members share the same aim to which they feel committed.
4. Organizational Memory	Walsh and Ungson (1991), Currie and Kerrin (2003)	It is both the tacit and explicit knowledge stored in the database of the organization and made available for the future use.	The organization has databases to stock its experiences and knowledge so as to be able to use them later on.

Table 2: The Dimension, Meaning, Literature Support, and the Sample Item - KMP

3. Research Objectives

The aim of this research is to study the dynamics of human resources management practices and knowledge management processes to accomplish this aim, following objectives have been developed.

1. Identify the dimensions which constitute the human resources management practices and knowledge management processes as relevant to knowledge intensive service organizations.
2. Develop a metric to measure above mentioned research constructs and validate it.
3. Develop a hypothetical model linking the various dimensions of the research constructs.
4. Obtain the empirical evidence for the inter-relationships between the dimensions of the research constructs.
5. Draw implications and make suggestions to the organizations to enhance the performance of human resources management processes.

4. Research Methodology

4.1. The Hypothetical Research Model

As per the objectives of the research the hypothetical model to study the mediating influence of HRP and KMP is as discussed below.

4.1.1. Linking HRM Practices to KM Processes

Many researchers have attempted to seek relationship between HRM and KM (e.g. Soliman &Spooner, 2000; Hislop, 2003; Shih & Chiang, 2005; Oltra, 2005; Scarbrough, 2003; Storey & Quintas, 2001; Khandekar & Sharma, 2005 and Lendzion, 2015). Learning in the context of a knowledge intensive service sector demands assimilation of both external and internal data, information and knowledge which could be acquired from within the company or from outside. The main determinant to learning is considered to be the involvement and commitment of the employees of the process (Minbaeva, 2005; Jimenez-Jimenez, 2013; and Omotayo, 2015). The challenge to learning lies in the ability to identify the knowledge-oriented HR practices. Active research has been on to identify the processes which actually facilitate the processes of learning.

Jimenez-Jimenez (2013) starting with 34 items representing HRM practices and further reduced them to seven basic dimensions of HRM which include job design, teamwork, staffing, career development, training, performance appraisal, and compensation. This grouping is just the identification of the HRM practices which have a significant influence on KM processes, which are of interest to this study. Literature review of KM and knowledge management has classified these contributing factors into individual and organizational factors (Fong et al., 2011). The former refers to employee motivation, information ownership, benefits and ethics etc., whereas the latter refers to organizational culture, HRM practices, and leadership etc. There are certain HRM practices that are found to be effective in encouraging knowledge sharing (Cabrera and Cabrera, 2005) which are discussed below.

1. Recruitment and Selection

Recruitment and selection are two activities of the staffing function of HRM carried out to acquire the right quantity and quality of employees at the right time which involves the matching of the knowledge, skills and attitudes of the candidate, to the specifications and requirements of the job (Chatman, 1991). Once the new employee recruited, high individual and team work performance is expected (Goodman and Svyantek, 1999) through a proper knowledge utilization. In an organization that treasures knowledge sharing, person to organization fit is significant because the original value and characteristics of the new recruit should embrace knowledge sharing too, in order to strengthen the dominant culture of knowledge sharing focused in the firm. Currie and Kerrin (2003) through a case study has proved that an inaccurate selection process results in poor knowledge sharing across functional units thus bringing down form performance. On the contrary the right selection of the candidate who suits to the job requirement may facilitate knowledge sharing which is a vital component of knowledge management (Taisir, &Tarhini, 2015). In this regard, recruitment and selection are anticipated to be associated with KM processes. This forms the basis for the postulation of the following hypotheses (alternative hypothesis).

→ H_1: Recruitment & selection has a significant influence on knowledge acquisition.
→ H_2: Recruitment & selection has a significant influence on knowledge distribution.
→ H_3: Recruitment & selection has a significant influence on knowledge interpretation.
→ H_4: Recruitment & selection has a significant influence on organizational memory.

2. Compensation and Reward

Compensation and reward have a proved influence on employee motivation towards work. Decenzo & Robins, (2008) have on the basis of motivational theories proved that compensation and reward reinforce the motivation for improved individual performance by employees through better learning, commitment and knowledge sharing. Further employees were found to repeat positive behavior in anticipation of rewards and recognition by the firm. Compensation and reward programs implemented by firms, promoted knowledge sharing (Zarraga and Bonache, 2003). With the right reward system installed, employees within a firm will be prompted to share knowledge with one another (Ooi et al., 2009). It was also observed that employees were reluctant to share knowledge operate under silos where information and knowledge hoarding took place (Goh, 2002), Clearly, this phenomenon works against knowledge sharing practices in a firm (Fong et al., 2011). The company should rather establish a different form of compensation system, which focuses on group-based compensation, in order to stimulate knowledge exchange and sharing within group members in an organization

(Yahya and Goh, 2002). All these observations have been based on qualitative studies by these authors and there was no dimensional level of empirical evidence. Hence, the following hypotheses were formulated.

- → H_5: Compensation & reward has a significant influence on knowledge acquisition.
- → H_6: Compensation & reward has a significant influence on knowledge distribution.
- → H_7: Compensation & reward has a significant influence on knowledge interpretation.
- → H_8: Compensation & reward has a significant influence on organizational memory.

3. Performance Appraisal

Performance appraisal is defined as a formal system of review and evaluation of individual or team task performance. An effective appraisal system evaluates accomplishments of work performance and the information gathered can be used for recruitment, training and development, compensation and internal employee relations (Mondy, 2010 and Nayeri, &Rostami, 2016). Konovsky and Cropanzano (1991) have shown that when the employees in a company perceived that the performance appraisal is fair and just, the employees would have a positive perspective of the firm, and this would increase their commitment towards the firm. Jaw and Liu (2003) proposed that it is essential for firms to make known the results of the performance appraisal to the employees, and consequently enforce remedial actions for the underperforming employees. Thus, a performance appraisal system can serve as a positive pressure in stirring on employees to thrive for better performance, through greater knowledge sharing among themselves. Hence, it is important to study the effect of performance appraisal on knowledge sharing behavior and hence the following hypotheses have been formulated.

- → H_9: Compensation & reward has a significant influence on knowledge acquisition.
- → H_{10}: Compensation & reward has a significant influence on knowledge distribution.
- → H_{11}: Compensation & reward has a significant influence on knowledge interpretation.
- → H_{12}: Compensation & reward has a significant influence on organizational memory.

4. Teamwork

Knowledge management is a team-based operation and does not work on individuals performing in isolation. As defined by Katzenbach and Smith (1993), a team comprises a small assembly of people, possessing different skills that complement one another, to attain a common goal in which the members hold themselves responsible. Knowledge sharing is about communicating information and ideas from one employee to another and sharing of knowledge can be encouraged through forming working teams in organizations. Lim and Klein (2006) opined that cohesive teams consist of members with similar norms, representing ideas or beliefs about how members are expected to behave. In the context of knowledge sharing, cohesive teams with knowledge sharing value will consider knowledge sharing as a "code of conduct" of the team. This self-regulated behavior in the team enables the team members to share their knowledge with one another willingly.

For sharing of knowledge to happen within a firm, according to Goh (2002), the firm's working environment should comprise team members who are cooperative. Hence, it is essential for a firm to create and nurture various teams for sharing of knowledge (Zarraga&Bonache, 2003). The researchers are confident that teamwork can be established through HRM practices which create an environment that encourages behaviors leading to trust and overtime, enhances knowledge management in the organization and this theoretical background has led to the postulation of following hypotheses.

- → H_{13}: Teamwork has a significant influence on knowledge acquisition.
- → H_{14}: Teamwork has a significant influence on knowledge distribution.
- → H_{15}: Teamwork has a significant influence on knowledge interpretation.
- → H_{16}: Teamwork has a significant influence on organizational memory.

5. Training and Development

According to Noe et al. (2008), training is described as a planned effort designed by the organization in assisting its employees in the learning process of job related competencies, such as knowledge, skills, or behaviors that are vital for the success of individual's job performances. Development refers to formal education, job experiences enhancement, assessment of personality and abilities that help employees prepare for the future (Noe et al., 2008). Training and development activities are proven to give positive effect on company performance (Valle et al., 2009). Training is important in the context of knowledge sharing as employees have an opportunity to exchange information and ideas during formal training sessions or informal interactions between two or more individuals (Ipe, 2003).

Apart from formal training, informal training and learning is equally important in knowledge sharing, as described by Ramirez and Li (2009) who found that external learning take place when employees communicate with supply chain and share ideas and assimilate knowledge. Knowledge transfer could also occur via supplier when employees undergo training to use a new piece of equipment or technology. The employees in turn will teach the customers, this is another example of teaching and knowledge sharing (Ramirez and Li, 2009). The bottom line is that training can help to overcome some constraints in knowledge sharing, such as learner's lack of motivation, low absorption capacity and integration capability (Rhodes et al., 2008). Even though there are insufficient studies that investigate the effect of training and development on knowledge sharing, it is anticipated that the relationship exists (Fong et al., 2011). In order to clarify the relationship between the two constructs, the following hypotheses have been proposed.

- → H_{17}: Training & development has a significant influence on knowledge acquisition.
- → H_{18}: Training & development has a significant influence on knowledge distribution.

→ H_{19}: Training & development has a significant influence on knowledge interpretation.
→ H_{20}: Training & development has a significant influence on organizational memory.

The complete theoretical research model is depicted in figure 1.

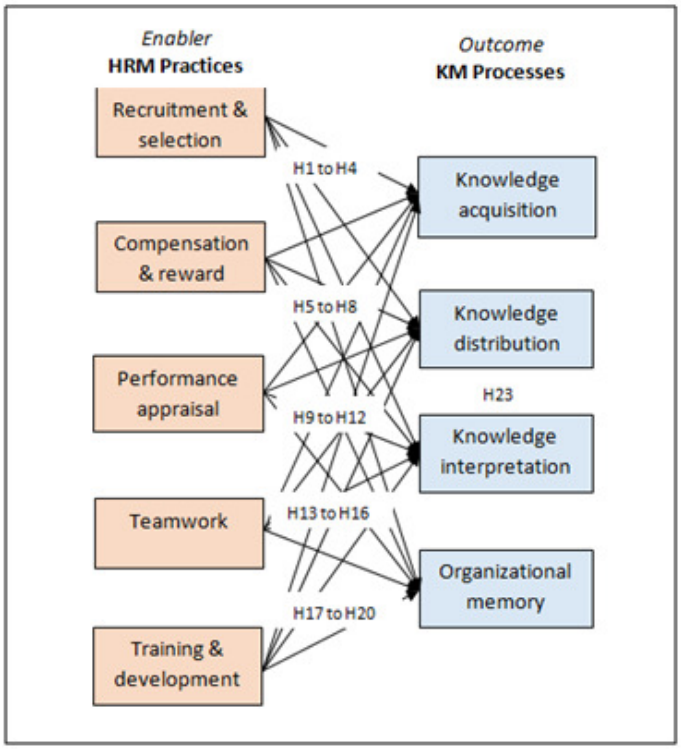

Figure 1: Hypothetical Research Model

4.2. Development of the Questionnaire

The development of the questionnaire was through the standard procedure of skimming through the available scales and metrics, consulting with the experts in the field, qualified respondents, and mainly through the literature (Chilisa, 2011). However, as the three research constructs were of research interest to both academics and practitioners in service as well as product industries standard questionnaires which were available and some of the items were readily usable with little or no modification to suit to the requirements of this research. The dimensions used under each of the research constructs, the contributing authors, the descriptions and the sample item of the questionnaire is given in the section Literature Review. The questionnaire had three distinct components of primary data collection: the first was demographics, the second quantitative data through Likert 5-point scale, and the third qualitative data through open-ended questions.

4.3. Sample Description

Considering the intensive use of knowledge and its application for the achievement of business goals and objectives the two sectors chosen were Higher Educational (HE) Institutions and the IT Companies. Ease of access to the employees and data collection through electronic means was also the inclusion criterion.

In Tamil Nadu State there are 21 state government universities, 14 central government institutions, 08 state & central government joint support universities, 28 private universities (deemed to be universities) and there are more than 100 colleges affiliated to these universities (MHRD, 2015). While obtaining the actual number of faculty in these institutes is beyond the scope of this research as the number is ever growing an estimation was made to define the population size and it was found that about 25,000 faculty members are working as Asst. Professor, Associate Professor, and Professor in these institutes. There are 238 IT parks and 1683 software exporting units in Tamil Nadu and about 2,70,000 employees in IT industries in Tamil Nadu (Suresh, 2014).

As per the second generation statistical analysis of Structural Equation Modelling used in this research, sample size is not an issue as long as the minimum sample size criterion of above 200 is satisfied. The software has the technique of bootstrapping through which extrapolation into any sample size is possible. However, to be sure of the minimum sample size, the approach of specifying the precision of estimation desired first, and then determining the sample size necessary to ensure it (Kothari, 2010) was adopted, according to which, the sample size necessary is about 188, however, to get a better sample distribution the sample size chosen in this research is 491 (HE institutions = 330; IT companies = 161). The main objective of this research is not the inter-sector comparison, instead the study of the impact of the human resources management practices on knowledge management processes and hence proportionate random sampling was not necessary and simple random sampling has been adopted. The sample size estimation is based on the 2% defect in sample (based on pilot study) and an acceptable error of 2%. The target respondents were the teaching faculty from HE institutions and managers from the IT companies.

4.4. Method of Data Collection

Questionnaires were administered both on personal and electronic mode. Out of 600 questionnaires distributed, 520 completed questionnaires were collected back after repeated pursuit (87% return rate). Informal interviews have also been conducted with the employees during the field visits. The sample has been randomized across the knowledge workers in the HE institutes and the IT companies in Tamil Nadu. The quantitative analysis through the questionnaire survey has been substantiated with the views of the knowledge workers both through the questionnaires as well as field visits.

4.5. Pilot Study and Analysis

The survey questionnaire is then subjected to a pilot test for a sample size of 32 for the content, construct and criterion validity. It was also subjected to confirmatory factor analysis and the original 51 items questionnaire is reduced to 30 items. This questionnaire is used for the primary data collection for the sample size of 491. The data thus collected was subjected to analysis which included descriptive statistics & inferential statistics using IBM SPSS 19, LISREL package for Goodness of Fit calculations, and SEM package SmartPLS 2.0 for constructing the measurement and structural model.

5. Results and Discussions

5.1. Demographic Details of Respondents

This section presents the demographic distribution for an understanding of the respondents' characteristics and their distinct features. As the descriptive provides an idea about the respondents details and background it provides strength to the inferences which are drawn through the data. The respondents chosen for this research are the knowledge workers of the Higher Education (HE) institutions and the IT sector. The total sample size in this research was 491 (HE institutions = 330; IT companies = 161). The majority of the respondents happen to be male (67.6%) in this research. Majority of the respondents are in the age group of 20-30 years (40.5%) followed by the age group of 30-40 years (27.5%). Educational qualification wise, majority of the respondents were post-graduates (40.5%) followed by graduates (26.9%). In terms of experience, majority had five to 10 years of experience (58%). The majority of the respondents were in the salary range of Rs. 20,000/= to 40,000/= (57.2%). Thus, the respondents are by and large normally distributed across each of their characteristics and majority are from a group which is competent enough to provide the required information both in qualitative and quantitative forms and are mature enough, adequately qualified, well-experienced, and are competent enough to provide data and information for this research.

5.2. Measurement Model

The maximum likelihood method of estimation was chosen for conducting SEM analysis. Table 3 represents the Goodness of Fit (GOF) indices for both the initial measurement models and final measurement model for all constructs. The last two rows represent GOF results for the full measurement model and recommended values for acceptable GOF. The overall GOF measures for some of the initial models did not meet the acceptable criteria, so the models were revised based on assessment of factor loading and suggestion from modification indices. This resulted in reduction of 45 item original *a priori* metric, into 27 item scale which was subjected to GOF test criterion. GOF results for both individual measurement models and full measurement models are within the acceptable range with non-significant $\chi 2$ (Chi-square) (>=0.05), goodness fit index (GFI), adjusted goodness fit index (AGFI) and Tucker-Lewis Index (TLI) values greater than 0.9 and Root Mean Square Error of Approximation (RMSEA) value < 0.10.

Construct	No. of Items	χ^2	Df	p	χ^2/Df	GFI	AGFI	RMSEA	TLI
RCT - Initial	5	62.35	4	0.05	3.3	0.96	0.94	0.53	0.93
RCT - Final	**3**	**7.4**	**2**	**0.36**	**2.1**	**0.88**	**0.82**	**0.03**	**0.97**
CMR - Initial	5	183.3	4	0.05	15.5	0.96	0.8	0.24	0.93
CMR - Final	**3**	**4.74**	**2**	**0.75**	**1.3**	**0.86**	**0.84**	**0.02**	**0.93**
PRA- Initial	5	2454	4	0.02	2.6	0.92	0.86	0.03	0.94
PRA - Final	**3**	**2.5**	**2**	**0.15**	**0.5**	**0.95**	**0.94**	**0.07**	**0.98**
KNA - Initial	5	123.2	4	0.04	30.6	0.94	0.84	0.13	0.84
KNA - Final	**3**	**1.64**	**2**	**0.32**	**0.5**	**0.86**	**0.94**	**0.12**	**0.96**
KND - Initial	5	121.3	4	0.04	20.4	0.92	0.94	0.06	0.93
KND - Final	**3**	**2.6**	**2**	**0.68**	**0.8**	**0.84**	**0.94**	**0.03**	**0.92**
KNI - Initial	**5**	85.5	4	0.004	10.8	0.92	0.97	0.04	0.97
KNI - Final	**3**	**8.3**	**2**	**0.16**	**2.8**	**0.93**	**0.8**	**0.04**	**0.93**
ORM - Initial	5	342.9	4	0.04	85.5	0.96	0.94	0.13	0.91
ORM- Final	**3**	**6.4**	**2**	**0.66**	**1.8**	**0.95**	**0.87**	**0.08**	**0.92**
				>=0.05	<=3.0	>=0.9	>=0.9	<=0.1	>=0.9

Table 3: Goodness of test results for measurement models

Legend:

Recruitment & Selection (RCT)
Compensation & Reward (CMR)
Performance Appraisal (PRA)
Teamwork (TMW)
Knowledge Acquisition (KNA)
Knowledge Distribution (KND)
Knowledge Interpretation (KNI)
Organizational Memory (ORM)

Training & Development (TRD)

To verify the reliability of the latent variables in the model, internal consistency reliability measure, item reliability measure and composite reliability measures were calculated. Table 4 shows the Cronbach's alpha coefficient and the composite reliability result for the final model. The alpha coefficient has the acceptable value ranging from 0.6 to 0.9, indicating a moderate to high level of internal consistency. The composite reliability estimate also ranges from 0.6 to 0.9 indicating moderate to high reliability values. The results of the convergent validity assessed based on factor loading (> 0.6) indicate a strong effect of the factor on the variable of study (Table 5). To test for discriminant validity, the square root of average variance extracted (AVE) for each construct was compared with the correlation between the construct and the other constructs. Table 6 shows acceptable discriminant validity between each pair of construct, with all AVE square roots greater than the correlation between the constructs.

	AVE	Composite Reliability	R Square	Cronbach's Alpha	Communality	Redundancy
CMR	0.67	0.8564	0	0.7424	0.67	0
KNA	0.63	0.8283	0.6387	0.6654	0.63	0.1157
KND	0.7363	0.8924	0.668	0.8171	0.7363	0.4407
KNI	0.7451	0.8973	0.6849	0.8263	0.7451	0.2647
ORM	0.8004	0.9231	0.4041	0.8749	0.8004	0.0996
PRA	0.6867	0.8631	0	0.7663	0.6867	0
RCT	0.364	0.5757	0	0.6165	0.364	0
TMW	0.4084	0.6272	0	0.8813	0.4084	0
TRD	0.74	0.8951	0	0.8248	0.74	0

Table 4: The Reliability Measures of the Data

	CMR	KNA	KND	KNI	ORM	ORP	PRA	RCT	TMW	TRD
CMR2	0.8943	0	0	0	0	0	0	0	0	0
CMR3	0.6426	0	0	0	0	0	0	0	0	0
CMR4	0.8928	0	0	0	0	0	0	0	0	0
KNA1	0	0.5134	0	0	0	0	0	0	0	0
KNA3	0	0.9535	0	0	0	0	0	0	0	0
KNA4	0	0.8469	0	0	0	0	0	0	0	0
KND1	0	0	0.8964	0	0	0	0	0	0	0
KND2	0	0	0.9326	0	0	0	0	0	0	0
KND3	0	0	0.7319	0	0	0	0	0	0	0
KNI1	0	0	0	0.8652	0	0	0	0	0	0
KNI2	0	0	0	0.9273	0	0	0	0	0	0
KNI4	0	0	0	0.7918	0	0	0	0	0	0
ORM1	0	0	0	0	0.8579	0	0	0	0	0
ORM2	0	0	0	0	0.8881	0	0	0	0	0
ORM3	0	0	0	0	0.9362	0	0	0	0	0
PRA1	0	0	0	0	0	0	0.9191	0	0	0
PRA4	0	0	0	0	0	0	0.5743	0	0	0
PRA5	0	0	0	0	0	0	0.941	0	0	0
RCT1	0	0	0	0	0	0	0	0.8219	0	0
RCT3	0	0	0	0	0	0	0	0.7368	0	0
RCT4	0	0	0	0	0	0	0	0.6308	0	0
TMW1	0	0	0	0	0	0	0	0	0.887	0
TMW4	0	0	0	0	0	0	0	0	0.7149	0
TMW5	0	0	0	0	0	0	0	0	0.6262	0
TRD1	0	0	0	0	0	0	0	0	0	0.8909
TRD2	0	0	0	0	0	0	0	0	0	0.8463
TRD3	0	0	0	0	0	0	0	0	0	0.8425

Table 5: Factor Loading after Reduction

	CMR	KNA	KND	KNI	ORM	PRA	RCT	TMW	TRD
CMR	1	0	0	0	0	0	0	0	0
KNA	0.6564	1	0	0	0	0	0	0	0
KND	0.5985	0.8376	1	0	0	0	0	0	0
KNI	0.7599	0.632	0.5408	1	0	0	0	0	0
ORM	0.3052	0.2518	0.354	0.377	1	0	0	0	0
PRA	0.7249	0.6887	0.6422	0.6584	0.1916	1	0	0	0
RCT	-0.4592	-0.4814	-0.5746	-0.4927	-0.2125	-0.3296	1	0	0
TMW	0.5024	0.575	0.5209	0.6053	0.5298	0.604	-0.2488	1	0
TRD	0.8557	0.7282	0.7216	0.7732	0.492	0.6549	-0.4758	0.635	1

Table 6: Inter-item Correlation and Discriminant Validity

5.3. Structural Model

From the main hypotheses testing the causal relationship between the constructs of study was established and a differential causation was observed for the research constructs. So, the next research question that was to be addressed was dynamics between these constructs when these variables are interlinked through the theoretical models. The obvious solution was the Structural Model of the SEM which has been described in the previous chapter. Structural model of the analysis gives the inter-relationships between the exogenous and the endogenous variables of study. This is used for the hypothesis testing at the macro level of the latent variables. The factor loadings after reduction, path coefficients, and R^2 are shown in Figure 2 and the t-values are shown in Table 7 and Figure 3. For all the relationships established, the path coefficient values ranged from 0.03 to 0.6 and the R^2 values were up to 0.9 (Table 4) which is quite adequate in comparison to the other research studies in this field (cut off 0.1) (Andriessen, 2004; Anantatmula, 2007; Fletcher and Harris, 2011; Olubunmi, 2015). The strength of the relation is moderate and the percentage influence of the exogenous variables on the endogenous variables as expressed by R^2 is acceptable.

- The SEM indicated that the following hypotheses were supported:

→ H_1: Recruitment & selection has a significant influence on knowledge acquisition.
→ H_2: Recruitment & selection has a significant influence on knowledge distribution.
→ H_3: Recruitment & selection has a significant influence on knowledge interpretation.
→ H_6: Compensation & reward has a significant influence on knowledge distribution.
→ H_7: Compensation & reward has a significant influence on knowledge interpretation.
→ H_9: Performance appraisal has a significant influence on knowledge acquisition.
→ H_{10}: Performance appraisal has a significant influence on knowledge distribution.
→ H_{12}: Performance appraisal has a significant influence on organizational memory.
→ H_{15}: Teamwork has a significant influence on knowledge interpretation.
→ H_{16}: Teamwork has a significant influence on organizational memory.
→ H_{17}: Training & development has a significant influence on knowledge acquisition.
→ H_{18}: Training & development has a significant influence on knowledge distribution.
→ H_{19}: Training & development has a significant influence on knowledge interpretation.
→ H_{20}: Training & development has a significant influence on organizational memory.

- Following hypotheses are not supported:

→ H_4: Recruitment & selection has a significant influence on organizational memory.
→ H_5: Compensation & reward has a significant influence on knowledge acquisition.
→ H_8: Compensation & reward has a significant influence on organizational memory.
→ H_{11}: Performance appraisal has a significant influence on knowledge interpretation.
→ H_{13}: Teamwork has a significant influence on knowledge acquisition.
→ H_{14}: Teamwork has a significant influence on knowledge distribution.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (|O/STERR|)	Hypothesis
CMR -> KNA	-0.1307	-0.092	0.1657	0.1657	0.7888	Unsupported
CMR -> KND	-0.3837	-0.3229	0.1456	0.1456	**2.6352***	**Supported**
CMR -> KNI	0.2969	0.2726	0.1066	0.1066	**2.7863***	**Supported**
CMR -> ORM	-0.1606	-0.1589	0.1896	0.1896	0.8471	Unsupported
PRA ->KNA	0.3775	0.3626	0.1141	0.1141	**3.3075***	**Supported**
PRA -> KND	0.4044	0.384	0.0791	0.0791	**5.1103***	**Supported**
PRA -> KNI	0.1134	0.1345	0.0948	0.0948	1.1954	Unsupported
PRA -> ORM	-0.3351	-0.3305	0.0896	0.0896	**3.7392***	**Supported**
RCT ->KNA	-0.1797	-0.1503	0.113	0.113	**1.6902*****	**Supported**
RCT -> KND	-0.3139	-0.2749	0.117	0.117	**2.6821***	**Supported**
RCT -> KNI	-0.1518	-0.1297	0.1037	0.1037	**1.6637*****	**Supported**
RCT -> ORM	-0.0224	-0.0186	0.0726	0.0726	0.3084	Unsupported
TMW ->KNA	0.0767	0.0739	0.0935	0.0935	0.8208	Unsupported
TMW -> KND	-0.0209	0.0036	0.0961	0.0961	0.2172	Unsupported
TMW -> KNI	0.1898	0.1787	0.0717	0.0717	**2.646***	**Supported**
TMW -> ORM	0.4608	0.4775	0.1223	0.1223	**3.7671***	**Supported**
TRD ->KNA	0.4585	0.4467	0.1604	0.1604	**2.8594***	**Supported**
TRD -> KND	0.6491	0.6025	0.1312	0.1312	**4.946***	**Supported**
TRD -> KNI	0.2521	0.2661	0.1236	0.1236	**2.0396****	**Supported**
TRD -> ORM	0.5457	0.5194	0.1821	0.1821	**2.9971***	**Supported**

Table 7: t-statistic of Hypothetical Research Model

**** (10% significance; t>1.64); **(5% significance; t>1.96); * (1% significance; t>2.58).*

6. Findings and Implications to the Strategic Managers

Through literature review it was found that there were many research studies which have linked the human resource management practices and human knowledge management processes. A number of theoretical models were available for establishing these linkages. Nevertheless, there was no empirical model that had established the relationship between the specific dimensions of these research constructs specifically in the context of IT sectors and Higher Education sectors. The identification of this research gap led to the development of a hypothetical research model which formed the basis of this study. So, the first finding of this research is the hypothetical model which links the dimensions of aforementioned three research constructs.

Through the Hypothesis testing it was found that Recruitment and selection had significant influence on Knowledge acquisition, Knowledge distribution, and Knowledge interpretation. This finding is in consistence with the earlier research findings by a group of researchers in different organizational settings (e.g. Hislop, 2004; Chiang & Chuang, 2011; Fong et al., 2011; Tan &Nasurdin, 2011; Jimenez-Jimenez &Sanz-Valle, 2013; Obeidat et al., 2014). Knowledge workers hold the key to progress in the knowledge (Decenzo& Robins, 2008) and acquisition of people with exceptional skills, knowledge, experience and attitude is a high priority task in the knowledge driven organizations of today (Brindusoiu, 2013). Poor recruitment decisions can have long-term negative effects such as high training and development costs to minimize the incidence of poor performance, disciplinary problems, disputes, absenteeism, low productivity, poor service delivery to customers, and high turnover which in turn impacts on staff morale (Brindusoiu, 2013). Thus, the managers and the policy makers of the service sectors should have detailed policies and procedures in place to inform the objective, fair, equitable, consistent and responsible application of recruitment and selection practices. Standardized methods and procedures must be developed and used to ensure compliance with the constitutionally prescribed values and principles. Thoroughly consider what skills, knowledge, competencies, training and traits the employees require to fill the vacant posts before advertising these. Valid selection criteria have to be used. Also, there is a need to constantly monitor the recruitment and selection processes. These are the specific implications for the managers and the policy makers of the knowledge intensive service sectors.

It has been found through hypothesis testing that Compensation and reward has a significant influence on Knowledge distribution and Knowledge interpretation. This finding is in alignment with the outcome obtained by a group of researchers (e.g. Lengnick-Hall &Lengnick-Hall, 2003; Scarbrough, 2003; Oltra, 2005; and Khandekar and Sharma, 2005; Lee & Ann, 2007). Compensation and reward has to be considered as a strategic tool by the knowledge intensive service sector policy makers and the managers. Knowledge distribution and knowledge interpretation are the key KM processes which are influenced significantly by the Compensation and reward. It has been found by a group of researchers that these processes are vital for the very existence of the organization and sustain the business (Gold et al., 2001 and Alavi and Leidner, 2001). However, it has also been observed that it is the very Compensation and reward systems which prevent the knowledge distribution and knowledge interpretation by the employees as they operate in silos and do not share knowledge due to internal rivalry (O'Dell & Grayson, 1998). Hence, the policy makers and the managers of the service sector under consideration have to consider the issue of handling Compensation and reward with utmost care so that it motivates the employees and at the same time does not develop professional rivalry.

Hypothesis testing indicates that Performance appraisal happens to be one of the important dimensions of HRM practices because it influences the three dimensions of KM processes: Knowledge acquisition, Knowledge distribution, and Organizational memory. In terms of the linkage between the Performance appraisal and KM dimensions many former researchers have obtained similar results in the service and product based industries (e.g. Kamdar et al., 2002; Robertson and Hammersley, 2000; Soliman and Spooner, 2000; Hislop, 2003; Hannula et al., 2003; and Shih and Chiang, 2005). Performance appraisal has emerged out to be one of the important dimensions of KM processes because it influences Knowledge acquisition, Knowledge distribution, and Organizational memory. It is observed that the knowledge management activities supporting individual performance are using individual knowledge for business productivity, enriching the depth of business knowledge, building core competencies and creativity & innovation and hence it is imperative that Performance appraisal must have a component which considers these aspects of an employee. Developing person-to-person knowledge sharing, protecting knowledge, acquiring knowledge from other employees and enriching the breadth of business knowledge also forms very important component of KM and the knowledge intensive service organizations must consider these aspects also in the performance appraisal so that there could be one to one discussion of the employee with the immediate supervisor on these aspects during the appraisal process.

Teamwork as revealed through the hypothesis testing has influence on the Knowledge interpretation and Organizational memory. This is because, unless people work in groups and develop collective knowledge in the organizational context, knowledge interpretation cannot be effective and the organizational memory cannot be expanded. This finding is in alignment with several other researchers (e.g. Sydanmaanlakka, 2001; Chung et al., 2013). Traditional approach of working in isolation or even informal networking has been replaced through teamwork in the knowledge driven economy and the classic case discussed by many researchers in the case of Boeing company which is one of the leaders of KM (Guay, 2001). Another popularly quoted organization is Microsoft which is the result of teamwork by all the employees (McCampbell et al., 1999). Soliman and Spooner (2000) postulate that KM teams are required not only to improve the performance and standing of the enterprise but also to ensure the effectiveness of the KM programme. Thus the revelation of hypothesis is in alignment of the earlier findings. This implies that the policy makers and the managers of the knowledge intensive service sectors must have a clear plan for developing teamwork in their organization. One best practice that can be shared in all the knowledge intensive service sectors is that the concept of 'cross functional teams' may be introduced which consist of members from all the departments. When this team meets and discusses strategic issues ideas will come from many different sections of the organization and it sets a direction for future organizational development. At the same time the

team educates all the members on how to use knowledge as a strategic tool in various activities of the individual department. Best part of the cross functional teams is that it ensures KM effectiveness and will be responsible for monitoring the progress of KM activities.

Training and development happens to be the only dimension which has influence on all the four dimensions of KM processes as per the hypothesis testing. This result has been in consistence with the finds by earlier researchers (e.g. Napierala et al., 2005, Chandavimol et al., 2013; Omotayo&Olubunmi, 2015). Today's organizations are looking for a transformation towards Learning Organization and to achieve it the employees should be constantly trained to learn about the company, the culture, the industry, the market, and so on (Galagan, 2003). There is a systematic process in place in today's successful organizations which links the Training and development to the KM success. The 'learning communities' is the key which is supported through the Training and development activities, which form the knowledge networks and contribute to the KM success (Allee, 2000). The organizational goals are identified by the learning communities and it is discussed thoroughly on how increased knowledge can make the organization reach there (Butschler, 2002). Analysis of training objectives provides taxonomies that may be used to characterize organizational knowledge needs and the training programmes are designed accordingly (Gaines, 2003). Training and development had emerged out to be the only dimension which influenced all the dimensions of KM processes and hence the policy makers and the managers of the knowledge intensive service sectors have to consider this dimension seriously and channelize their resources to strengthen this dimension. First and foremost, the top management must identify the leading trends in the service industries and how they intend to transform their organization with the right kind of knowledge to go with the trend and also to identify the most critical competencies which need to be developed to meet the challenges posed by the trend and plan for the training and development programme accordingly (Naughton & Rothwell, 2013). It is imperative that in the knowledge intensive service organizations the competitive advantage is through service differentiation, cost leadership, and superior performance and there is a need to provide an opportunity for the employees to develop their competencies, skills and knowledge to aim towards these factors. Naughton & Rothwell (2013) also suggest that while planning for a training programme it is very important to keep abreast of newer and emerging technologies, and make the trainers act more than the deliverer to a facilitator, content curator, information and knowledge manager, and also builder of learning communities. It is also worthwhile to establish a culture of connectivity and collaboration between the members of the team via mobile and social technology.

Knowledge management has emerged out to be a dimension which has a significant influence on organizational performance. So, one of the most important implications to the policy makers and the managers of knowledge intensive service organizations is that the most effective means to achieve better KM performance is through strengthening the HRM practices. It is implied that the managers of the service sectors need to consider the four major critical success factors recommended by a group of researchers who have extensively worked on the KM models and arrived at: the human based factors (leadership, culture, and people); organizational factors (processes and structures); technology based factors (infrastructure and applications); management (strategy, goals, and metrics) (Shin, 2004; Pawlowski and Bick, 2012; Bamgboje-Ayodele& Ellis, 2015; Salami and Ogbeta, 2015) all of which have bearing on the performance of the human resources. It is a general observation that KM processes heavily rely on technology and the service organizations need to invest on these technologies particularly the Information Technology (IT). A set of organizational changes are strongly recommended based on the information gathered through the field visits and the extensive literature review in which the past experience of the service organizations have been analysed. To have a positive impact on elements of knowledge, IT has to be introduced in a phased manner. It is also necessary that IT is backed up by changes in people, organizational climate and organizational processes. Organizational change helps an organization to optimize processes and define process oriented structure. Further, a behavioral and cultural change has to be brought in the service providers to develop flexibility to adapt to the changing situations. A strong culture, trust and transparency in all areas of the organization may be necessary to make the KM processes to be effectively supported by the knowledge workers.

7. Conclusion

This research primarily focussed on the mediating influence of the dimensions of the HRM practices: recruitment & selection, compensation & reward, performance appraisal, teamwork, and training & development on of KM processes: knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory. It was revealed through the hypothesis testing that recruitment and selection had a positive association with knowledge acquisition, knowledge distribution, and knowledge interpretation in the knowledge intensive service industries. Compensation and reward had a significant influence on knowledge distribution and knowledge interpretation. Performance appraisal has been causally linked to knowledge acquisition, knowledge distribution, and organizational memory. Teamwork was found to be causally linked to knowledge interpretation as well as organizational memory. Training & development had a significant influence on knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory. All these results were in accordance to the earlier findings in various other contexts.

At the same time, surprisingly recruitment & selection and compensation & reward had no significant influence on organizational memory, compensation & reward had no significant influence on knowledge acquisition, performance appraisal had no significant influence on knowledge interpretation, teamwork had no significant influence on knowledge acquisition, and knowledge distribution, and also, recruitment & selection, compensation & reward, teamwork, and training and development. These results are in contradiction to the earlier findings of the researchers.

Analysis of the corroboration of the research findings with earlier research and the informal discussions with the knowledge workers in the two knowledge intensive service sectors considered in this research led to the development of the strategic implications to the managers of the knowledge intensive service industries which may be considered these organizations for enhancing their organizational performance.

The research has a few limitations which provide scope for future research. First of all, this is mainly a quantitative analysis and all the limitations of the second generation statistical analysis are applicable to this research. Sample size has always been an issue in empirical studies and in this research even though the standard formula has been adopted the assumptions in the formula act as the limitation for the possibility of generalization of the results completely. Finally, this is a perceptions based study and has its own methodical limitations. Future researchers may consider the possibility of studying the combined influence of knowledge management as well as total quality management as the mediating variable. In this modern era based on knowledge economy this research is quite timely and the implications to the managers drawn in this research may be of immense use in enhancing the organizational performance through an effective set of KM processes developed by efficient human resource management practices.

8. References

i. Ahmed, G. (2015). Innovative Contribution to organizational knowledge management strategy: a team action learning initiative, In Remeneyi (Ed.), Knowledge management and Intellectual Capital Excellence Awards 2015, An anthology of case histories reading: Academic Conference and Publishing International Limited.

ii. Ahmed, S., Fiaz, M., Shoaib, M., (2015). Impact of Knowledge Management Practices on Organizational Performance: an Empirical study of Banking Sector in Pakistan, FWU Journal of Social Sciences, 9(2), 147-167.

iii. Alavi, M., Leidner, D.E., (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. MIS Quarterly, 25(1), 107–136.

iv. Allee, V. (2000). Knowledge networks and communities of practice. OD Practitioner: Journal of the Organizational Development Network, 32(4), 45-52.

v. Anantatmula, V.S. (2007), Linking KM effectiveness attributes to organizational performance, VINE, 37(2), 133 – 149.

vi. Andriessen, D. (2004), "Intellectual capital valuation and measurement: classifying the state of the art", Journal of Intellectual Capital, 5(2), 230-42.

vii. Anyebe, A. (2003). The Nigerian Civil Service: Issues in Structure and Operation. Journal of Professional Administration. 5(1), 11-17.

viii. Armstrong, M. (2006). A Handbook of Human resource management practice. 10th edition. Cambridge University Press.

ix. Armstrong, M. and Baron, A. (1998), Out of the Tick Box, People Management, 23 July, pp. 38–41.

x. Bamgboje-Ayodele, A. & Ellis, L. (2015). Knowledge Management and the Nigerian Culture – A round peg in a square hole? The African Journal of Information Systems, 7(1), 22-34.

xi. Becker, B., &Huselid, M. (2006) Strategic human resource management: where do we go from here? Journal of Management , 32, 898-925.

xii. Becker, B., Huselid, M., Pickus, P. and Spratt, M. (1997), HR as a source of shareholder value: research and recommendations, Human Resource Management, 36(1), 39-47.

xiii. Bob, N. (2001). Making employees suggestions Count, Journal of personnel management 17, 20 -41.

xiv. Bratton, J., and Gold, J. (2007). Human Resource Management: Theory and Practice, 4th Edition, Houndmills: Macmillan

xv. Brindusoiu, C. (2013). Recruitment and Selection in Services Organizations in Romania. Procedia - Social and Behavioral Science.

xvi. Butschler, M. (2002, July). Knowledge transfer networks. Learning Circuits. Retrieved on October 12, 2015 from: http://www.astd.org.

xvii. Cabrera, A., Collins, W.C. and Salgado, J.F. (2006), Determinants of individual engagement in knowledge sharing, International Journal of Human Resource Management, 17(2), 264-75.

xviii. Cabrera, E.F. and Cabrera, A. (2005), Fostering knowledge sharing through people management practices, International Journal of Human Resource Management, 16(5), 270-95.

xix. Camelo-Ordaz, C., Garcia-Cruz, J., Sousa-Ginel, E. and Valle-Cabrera, R. (2011). The influece of human resource management on knowledge sharing and innovation in Spain: the mediating role of affective commitment, International Journal of Human Resource Management, 22(7), 1442-63.

xx. Cha, H.S., Pingry, D.E. and Thatcher, M.E. (2008), Managing the knowledge supply chain: an organizational learning model of information technology offshore outsourcing, MIS Quarterly, 32(2), 281-306.

xxi. Chandavimol, P., Natakuatoong, O. and Tantrarungroj, P. (2013). Blended Training Model with Knowledge Management and Action Learning Principles to Develop Training Program Design Competencies, International Journal of Information and Education Technology, 3(6), 619-623.

xxii. Chatman, J.A. (1991), Matching people and organization: selection and socialization in public accounting firms, Administrative Science Quarterly, 36(3), 459-84.

xxiii. Chen, C.-J. and Huang, J.-W. (2009). Strategic human resource practices and innovation Performance: The mediating role of knowledge management capacity, Journal of Business Research, 62(1), 104-14.

xxiv. Chiang C.F., Tsung-Sheng H., (2012). The impacts of perceived organizational support and psychological empowerment on job performance: The mediating effects of organizational citizenship behavior, International Journal of Hospitality Management, 31, pp. 180–190.

xxv. Chilisa, B. (2011). Indigenous Research Methodologies, London: SAGE Books.

xxvi. Chung, J.C.F., Wai, Y.M. Lau, D. and Songip, A.R. (2013). Teamwork - A Success Factor of Knowledge Management for Faculty Development: A Case Study, International Journal of Information and Education Technology, 3(2), 192-195.

xxvii. Currie, G. and Kerrin, M. (2003), Human resource management and knowledge management: enhancing knowledge sharing in a pharmaceutical company, International Journal of Human Resource Management, 14(6), 1027-45.

xxviii. DeCenzo, D.A. and Robbins, S.P., (2008), Fundamentals of Management: Essential Concepts and Applications, 6th ed., Pearson Prentice Hall, Upper Saddle River, NJ.

xxix. Foley, G. (2004). Dimensions of adult learning: Adult education and training in globalera. Crows Nest: Allen and Unwin Publishers.

xxx. Fong, C., Ooi, K., Tan, B., Lee, V., & Chong, A. (2011). HRM practices and knowledge sharing: an empirical study. International Journal of Manpower, 32(5/6), 704–723.

xxxi. Gaines, B. (2003). Organizational knowledge acquisition. Retrieved October 16, 2015 from: http://www.repgrid.com.

xxxii. Galagan, P. (2003). The future of the profession formerly known as training. T+D Magazine, 27-38.

xxxiii. Goh, S.C. (2002), Managing effective knowledge transfer: an integrative framework and some practice implications, Journal of Knowledge Management, Vol. 6 No. 1, pp. 23-30.

xxxiv. Gold, A.H., Malhotra, A., Segars, A.H., (2001). Knowledge management: An organizational capabilities perspective. Journal of Management Information Systems, 18(1), 185–214.

xxxv. Goodman, S.A. and Svyantek, D.J. (1999), Person-organization fit and contextual performance: do shared values matter? Journal of Vocational Behavior, Vol. 55 No. 2, pp. 254-75.

xxxvi. Guay, B. (2001). Knowledge management is a team sport, Computing Canada, 27(15), 23

xxxvii. Hannula, M., M. Kukko and J. Okkonen, 2003. The fourth perspective – knowledge management in human resources context. Business Excellence, Retrieved on 12th December 2015 from: http://www.tut.fi/units/tuta/teta/mittaritiimi/julkaisut/4thperspective.pdf

xxxviii. Harris, P. R., & Harris, K. G. (1996). Managing effectively through teams. Team Performance Management: An International Journal, 2(3), 23-36.

xxxix. Hislop, D. (2003). Linking human resource management and knowledge management via commitment. Employee Relations, 25(2), 182–202.

xl. Ipe, M. (2003), "Knowledge sharing in organizations: a conceptual framework", Human Resource Development Review, Vol. 2 No. 4, pp. 337-59.

xli. Jaw, B.S. and Liu, W. (2003), "Promoting organizational learning and self-renewal in Taiwanese companies: the role of HRM", Human Resource Management, Vol. 42 No. 3, pp. 223-41.

xlii. Jimenez-Jimenez, D., &Sanz-Valle, R. (2013). Studying the effect of HRM practices on the knowledge management process. Personnel Review, 42(1), 28–49. http://dx.doi.org/10.1108/00483481311285219.

xliii. Kamdar, D., Chia, H., Nosworthy, G.J. and Chay, J. (2002). The Impact of Performance Appraisal on Knowledge Sharing among Employees, paper presented at the 17th Annual Meeting of the Society of Industrial/Organizational Psychology, Toronto.

xliv. Katzenbach, J.R. and Smith, D.K. (1993), "The discipline of teams", Harvard Business Review, Vol. 71 No. 2, pp. 111-20.

xlv. Kesti, M. &Syväjärvi, A. (2015). Human Capital Production Function in Strategic Management, Technology and Investment, 6, 12-21.

xlvi. Khandekar, A. and Sharma, A. (2005), "Organizational learning in Indian organizations: a strategic HRM perspective", Journal of Small Business and Enterprise Development, Vol. 12 No. 2, pp. 211-26.

xlvii. Kim, L. (1998), "Crisis construction and organizational learning: capability building in catching-up at Hyundai Motors", Organization Science, Vol. 9 No. 4, pp. 506-21.

xlviii. Koffman, F. and Senge, P.M. (2012), "Communities of commitment: the heart of learning organizations", Organizational Dynamics, Vol. 22, pp. 5-23.

xlix. Konovsky, M.A. and Cropanzano, R. (1991), Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance, Journal of Applied Psychology, Vol. 76 No. 5, pp. 698-707.

l. Kothari, C.R. (2010). Research Methodology: Methods and Techniques, New Delhi: New Age Publications.

li. Kougias, I., Seremeti, L., Kalogeras, D. (2013). Mobility of East European Citizens: training and development, European Journal of Training and Development, 37(8), 766-778.

lii. Kumar, V., Choisne, F., Grosbois, D. D., & Kumar, U. (2009). Impact of TQM On Company's Performance. International Journal of Quality & Reliability Management, 26(1), 23-37.

liii. Lee, D. and Steen, E.V.D. (2010), ''Managing know-how'', Management Science, Vol. 56 No. 2, pp. 270-85.

liv. Lendzion, J.P. (2015). Human Resources Management in the System of Organizational Knowledge Management, Procedia ManufacturingVol. 3, 674-680.

lv. Lengnick-Hall, M.L. and Lengnick-Hall, C.A. (2003). Human Resource Management in the Knowledge Economy: New Challenges, New Roles, New Capabilities. San Francisco, CA: Berrett-Koehler.

lvi. Leonard-Barton, D. (1992), The factory as a learning laboratory, Sloan Management Review, Vol. 34, pp. 23-38.

lvii. Lim, B.C. and Klein, K.J. (2006), "Team mental models and team performance: a field study of the effects of team mental model similarity and accuracy", Journal of Organizational Behavior, Vol. 27 No. 4, pp. 403-18.

lviii. Luca, J., &Tarricone, P. (2001). Does emotional intelligence affect successful teamwork? In Meeting at the crossroads. Proceedings of the 18th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education. Melbourne, Australia, 9-12 December 2001. Retrieved 14th June, 2016 from: http://ro.ecu.edu.au/ecuworks/4834.

lix. MacKenzie, P., Podsakoff, M. and Jarvis, C. (2005), "The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions", Journal of Applied Psychology, Vol. 90 No. 4, pp. 710-30.

lx. Mayo, A. (2001) The Human Value of the Enterprise: Valuing people as assets – monitoring, measuring, managing. London: Nicolas Brealey.

lxi. McCampbell, A. S. , Clare, L. M. andGitters, S. H. (1999). Knowledge management: The new challenge for the 21st century,‖ Journal of Knowledge Management, 3(3), 172-179.

lxii. MHRD, (2015). All India survey on higher education, Ministry of Higher Education Report, Retrieved on 28th December, 2015 from: http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE201011.pdf.

lxiii. Michie, J. and Sheehan, M. (2005), "Business strategy, human resources, labour market flexibility, and competitive advantage", International Journal of HRM, Vol. 16 No. 3, pp. 445-64.

lxiv. Michie, J. and Sheehan-Quinn, M. (2001), "Labour market flexibility, human resource management and corporate performance", British Journal of Management, Vol. 12, pp. 287-306.

lxv. Minbaeva, D.B. (2005), HRM practices and MNC knowledge transfer, Personnel Review, Vol. 34, pp. 125-44.

lxvi. Mondy, R.W. (2010), Human Resource Management, 11th ed., Pearson/Prentice Hall, Upper Saddle River, NJ.

lxvii. Napierala, K., Selig, L.W. & Berge, Z. (2005). The Role of Training and Development in Using Knowledge Networks to Build Intellectual Capital, Journal of Knowledge Management Practice, 1(2), 23-31.

lxviii. Naughton, J.A. & Rothwell, W.J. (2013). Training and development competencies: redefined to create competitive advantage, Proceedings of American Society of Training and Development, Retrieved on 14th September, 2015 from : http://webcasts.astd.org/

lxix. Nayeri, &Rostami, (2016). A model on knowledge workers performance evaluation, Review of Knowledge Economy, 2(4), 1-16.

lxx. Noe, R.A., Hollenbeck, J.R., Gerhart, B. and Wright, P.M. (2008), Human Resource Management –Gaining a Competitive Advantage, 6th ed., McGraw-Hill, New York, NY.

lxxi. O'Dell, C., Grayson, J., (1998). If only we knew what we know: Identification and transfer of internal best practices. California Management Review, 40 (3), 154–174.

lxxii. Obeidat, B.Y., Masa'deh, R.M., & Abdallah, A.B. (2014). The Relationships among Human Resource Management Practices, Organizational Commitment, and Knowledge Management Processes: A Structural Equation Modeling Approach, International Journal of Business and Management, 9(3), 9-26, ISSN 1833-3850 E-ISSN 1833-8119.

lxxiii. Ogedegbe, R. J. (2014). Achieving Organisational Objectives through Human Resource Management Practices, European Journal of Business and Management, 6(14), 18-23.

lxxiv. Ogunyomia, P & Bruningb, N.S. (2016). Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria, The International Journal of Human Resource Management, 17(6), 612-634.

lxxv. Oltra, V. (2005), Knowledge management effectiveness factors: the role of HRM, Journal of Knowledge Management, Vol. 9 No. 4, pp. 70-86.

lxxvi. Omotayo, F, O., (2015). Knowledge Management as an important tool in Organisational Management: A Review of Literature, Library Philosophy and Practice (e-journal). Paper 1238, Retrieved on 14th June, 2016 from: http://digitalcommons.unl.edu/libphilprac/1238.

lxxvii. Ooi, K.B., Teh, P.L. and Chong, A.Y.L. (2009), Developing an integrated model of TQM and HRM on KM activities, Management Research News, Vol. 32 No. 5, pp. 477-90.

lxxviii. Pawlowski, J and Bick, M. (2012). The Global Knowledge Management Framework: Towards a Theory for Knowledge Management in Globally Distributed Settings. Electronic Journal of Knowledge Management, 10(2)1, 92-108.

lxxix. Pearce, J.A. & Robinson, R.B. (2007). Formulation, Implementation and Control of Competitive Strategy, 9th edition. Boston, MA: McGraw-Hill Irwin.

lxxx. Pearce, L. (2010). Managerial compensation based on organization performance, Journal of industrial Relation, 52:3-28.

lxxxi. Pitt (2008). Building an effective team for business, Journal of facilities management, 6(2), 33-47.

lxxxii. Ramirez, M. and Li, X. (2009), "Learning and sharing in a Chinese high-technology cluster: a study of inter-firm and intra-firm knowledge flows between R&D employees", New Technology, Work and Employment, Vol. 24 No. 3, pp. 277-96.

lxxxiii. Randell, G. A. (1994), Employee Appraisal, In Sisson K. (Ed), Personnel Management: a comprehensive guide to theory & Practice in Britain, Oxford: Blackwell Publishers Ltd.

lxxxiv. Rašula, J., Vukšić, V. B., &Štemberger, M. I. (2012). The impact of knowledge management on organizational performance. Economic and Business Review, 14(2), 147–168.

lxxxv. Remco, S. and Dennis, R.M. (2009), "Learning barriers: a framework for the examination of structural impediments to organizational change", Human Resource Management, Vol. 48, No. 3, pp. 399-416.

lxxxvi. Rhodes, J., Lok, P., Hung, R.Y.Y. and Fang, S.C. (2008), "An integration model of organizational learning and social capital on effective knowledge transfer and perceived organizational performance", Journal of Workplace Learning, Vol. 20 No. 4, pp. 245-58.

lxxxvii. Robertson, M. and Hammersley, G.M. (2000), "Knowledge management practices within a knowledge-intensive firm: the significance of the people management dimension", Journal of European Industrial Training, Vol. 24 No. 2, pp. 241-53.

lxxxviii. Salami, C. G. E. and Ogbeta, M.E., (2015). Knowledge Management and Organizational Performance Retrieved on 15th June, 2015 from: http://ssrn.com/abstract=2612526 or http://dx.doi.org/10.2139/ssrn.2612526.

lxxxix. Scarbrough, H. (2003), "Knowledge management, HRM and the innovation process", International Journal of Manpower, Vol. 24 No. 5, pp. 501-16.
xc. Scarnati, J. T. (2001). On becoming a team player. Team Performance Management: An International Journal, 7(1/2), 5-10.
xci. Senge, P.M. (2012), The Fifth Discipline: The Art & Practice of the Learning Organization, Random House, London.
xcii. Shaw, S. &Fairhurst, D. (2008). Engaging a new generation of graduates. Education + Training, 50(5), 366-378.
xciii. Shih, H.A. and Chiang, Y.H. (2005), "Strategy alignment between HRM, KM, and corporate development", Information Journal of Manpower, Vol. 26 No. 6, pp. 582-603.
xciv. Shin, M. (2004). A framework for evaluating economics of knowledge management systems, Information & Management, 42(1), 179–196.
xcv. Soliman, F. and Spooner, K. (2000), "Strategies for implementing knowledge management: role of human resources management", Journal of Knowledge Management, Vol. 4 No. 4, pp. 337-45.
xcvi. Storey, J. and Quintas, P. (2001), "Knowledge management and HRM", in Storey, J. (Ed.), Human Resource Management: A Critical Text, Thomson Learning, London.
xcvii. Stroh, L. and Caligiuri, P. (1998), "Strategic human resources: a new source for competitive advantage in the global arena", The International Journal of Human Resource Management, Vol. 9 No. 1, pp. 1-17.
xcviii. Suresh, N. (2014). Growth of IT industries in Tamil Nadu and its implications to Chennai Metropolis, I. K, Publishers, New Delhi.
xcix. Sydanmaanlakka, P. (2002). An intelligent organization: Integrating performance, competence and knowledge management, Oxford: Capstone.
c. Taisir, M., Tarhini, A.T. (2015). , Knowledge Sharing Capability: A Literature Review , Conference Proceedings (COES&RJ-CP) , ISBN (E): 978-969-9347-66-5 ISBN (P): 978-969-9347-67-2, 5(8).
ci. Tan, C. L., &Nasurdin, A. M. (2011). Human resource management practices and organizational innovation: Assessing the mediating role of knowledge management effectiveness. Electronic Journal of Knowledge Management, 9(2), 155–167.
cii. Ulrich, D., Jick, T. and Von Glinow, M. (1993), High impact learning: building and diffusing learning capability, Organizational Dynamics, Vol. 22, pp. 52-66.
ciii. Valentine, D.B. & Powers, T.L. (2013), Generation Y values and lifestyle segments, Journal of Consumer Marketing, Vol. 30 Iss 7 pp. 597 – 606.
civ. Valle, I.D., Castillo, M.A.S. and Rodriguez-Duarte, A. (2009), "The effects of training on performance in service companies: a data panel study", International Journal of Manpower, Vol. 30 No. 4, pp. 393-407.
cv. Verma, S. and Dewe, P. (2004), Valuing Human Resources, ACCA Research Report No. 83, Retrieved on 14th June, 2016 from: www2.accaglobal.com/pubs/../research/research../rr-083-001.pdf.
cvi. Walczak, S. (2005). Organizational knowledge management structure, The Learning Organization, 12(4), 330–339.
cvii. Walsh, J.P. and Ungson, G.R. (1991), "Organizational memory", Academy of Management Review, Vol. 16, pp. 57-91.
cviii. Wattanasupachoke, T. (2009) Strategic human resource management and organizational performance: a study of Thai enterprises, Journal of Global Business Issues, 3(2), 139- 148.
cix. Yahya, S. and Goh, W.K. (2002), "Managing human resources toward achieving knowledge management", Journal of Knowledge Management, Vol. 6 No. 5, pp. 457-68.
cx. Zarraga, C. and Bonache, J. (2003), Assessing the team environment for knowledge sharing: an empirical analysis, The International Journal of Human Resource Management, Vol. 14, No. 7, pp. 1227-45.