

## Teacher Educators' Perceptions of HRM Practices and Knowledge Sharing Behavior in Bangladesh

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### Abstract

*The education institutions of Bangladesh need to realize the value of knowledge; especially the knowledge that, resides in the human brain as an imperceptible strength along with other traditional physical properties. Therefore, improving educational institutes and teacher educators' capability are important goals for education institutions in Bangladesh. The purpose of this study is to understand and identify teacher educators' perceptions about the impact of HRM practices and knowledge sharing antecedents on teacher educators' knowledge sharing behavior in Bangladesh. Most of the knowledge management (KM) literature has discussed the antecedents of teacher educators' knowledge-sharing. Based on previous research, a theoretical model is developed for this study and hypotheses are formulated. Data were collected through questionnaires. A total of 270 questionnaires were distributed to the teacher educators of 29 education institutions. Of these, 190 were useable questionnaires; thus resulting in 61.33% valid response rate. The Partial Least Squares approach to Structural Equation Modeling (PLS-SEM) was the statistical technique employed in the study. The findings of the study revealed that, collective HRM practices have a direct positive effect on teacher educators' knowledge sharing behavior. The results of this suggest that, cooperative practices and trust can help teacher educators' knowledge sharing behavior to improve the capability of individuals in their institutions. The findings of this research paper are beneficial for academics, researchers, practitioners, and those interested in educational institute structure in the knowledge context.*

**Key Words:** Teacher Educator, Knowledge Management, Human Resource Management, Recruitment, Selection, Rewards, Recognition, Trust, Behavior.

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## 1. Introduction and Background

Knowledge, as a resource, is beginning to substitute physical resources for value creation in the education institutions. The ability to share, apply and create new knowledge becomes the basis by which to obtain competitive advantage in education institutions (Kashif & Rafi, 2011); Nonaka & Takeuchi, 1995). Knowledge, as a resource, has a pivotal role where work is mostly academic and intellectual in education institutions that are known as knowledge intensive organizations (KIOs). Due to competitive pressures among education institutions they are now focusing on how to manage their teacher educators' knowledge, just as they do the other resources that are used to develop their students. Consequently, knowledge management (KM) has gained attention, and, therefore, education institutions are beginning to capitalize in KM initiatives to improve educational institute capability. Consequently, the term KM is mostly considered in the context of managing the knowledge of teacher educators within education institutions. KM can build an educational institute knowledge base that can help to improve decision-making, innovation, and productivity (Bock, Zmud & Lee, 2005); Jayasingam, Ansari & Jantan, 2010). The extent of the success of education institutions, particularly, knowledge-intensive organizations (KIOs) depend on how KM initiatives are entrenched in educational institute practices and policies (Olivera, 2000).

More recently, KM academics and practitioners have come to realize that knowledge may only support KM initiatives and does not act as a temporary for human beings in educational workplaces. Hence, the latest KM research in the knowledge sharing context is linked to teacher educators' knowledge (Jamal & Naser, 2003; Gould-Williams, 2003). Teacher educators' knowledge can provide a competitive advantage to education institutions. Competitive advantage enables education institutions to contest against and exhausted their competitors in the education market (Cabrera, Collins & Salgado, 2006). Oltra (2005) proposes that teacher educators' knowledge gained through experience may be more important in the future than that of physical wealth in order to gain educational competitive advantage. Teacher educators' knowledge, being a critical resource, developed through experience and intelligence of an individual, provides a competitive advantage to education institutions (Ahmad & Schroeder, 2003). An individual's knowledge has become one of the most valuable resources of wealth creation, prosperity and education success (Alavi, Kayworth & Leidner, 2006). In workplaces, teacher educators have a wealth of knowledge, gained through their experiences over their lifetimes. Education institutions of Bangladesh that identify the capability of their teacher educators, through the effective use of their HRM practices, can utilize their teacher educators' potential (Cabrera & Cabrera, 2005).

However, the prospective of teacher educators' knowledge to solve particular problems in workplaces is limited due to constraints imposed by human resource functions such as job descriptions and job evaluation. Such HRM functions may confine teacher educators to their designated workplace roles, being incompetent to see the latent in thinking beyond specific job descriptions (Karami, Rowley & Analoui, 2006). To infer teacher educators' knowledge in workplaces, specific HRM practices that act as antecedents of KM may be used to link HRM and KM (Olander & Hurmelinna, 2010). HRM practices such as recruitment and selection, training and development, and reward systems may be important for managing teacher educators' knowledge within

education institutions in Bangladesh. HRM can influence knowledge creation, acquisition, and transfer by highlighting the relationship between HRM and KM as a new field of research (Hansen, Nohria & Tierney, 2000). Similarly, HRM practices can improve the search and investigation for knowledge previously unobtainable within the education institutions, as well as the knowledge base (Olander & Hurmelinna-Laukkanen, 2010). HRM practices assist teacher educators' motivation and commitment, and improve teacher educators' performance to the extent that they develop important skills that are challenging to replace. Specific HRM practices, through knowledge sharing activities, engage teacher educators in day-to-day and long-term decision-making through the building of an atmosphere based on collaboration.

However, few researchers have empirically tested the effect of HRM practices on teacher educators' knowledge sharing behavior in the workplace (Fang & Chiu, 2010), and little empirical research has been conducted to explore educator collaboration, which is the primary source of knowledge transfer (Gammelgaard, 2007), and knowledge sharing outcomes (Egan, Yang & Bartlett, 2004). To address the research gaps, namely the effect of HRM practices on knowledge sharing and knowledge sharing outcomes, this research paper empirically investigates the effect of HRM practices on teacher educators' knowledge sharing behavior and knowledge sharing outcomes. The data for this research paper was collected from education institutes from different parts of Bangladesh, and samples were obtained from populations in the educational sectors. The results of this research paper are based on teacher educators' insights regarding the impact of HRM practices and their knowledge sharing behavior. Teacher educators' perceptions are their own opinions, based on their involvements within the educational institute environment.

## **2. Research Problem**

This research paper addresses research gaps by empirically testing the consequence of HRM practices on knowledge sharing behavior. Further research is required in the field of HRM in order to better support KM initiatives (Egan, Yang & Bartlett, 2004). Although, most of the KM literature discusses the antecedents of teacher educators' knowledge-sharing, empirical research is required to explore how these teacher educators' knowledge sharing activities provide benefits to teacher educators in terms of their learning capability (Mac Callum, Browne & Sugawara, 1996; Egan, Yang & Bartlett, 2004). Although several researchers suggest that HRM and KM have a positive relationship, little research has explored individual related issues (Jayasingam, Ansari & Jantan, 2010; Oltra, 2005) and merits further study (Geare, Edgar & McAndrew, 2006)). In addition, numerous knowledge management (KM) initiatives, such as managing teacher educators' knowledge in a collaborative environment, continue to be relegated, while technical related issues dominate the educational institute agenda. Even though education institutions inspire teacher educators to share their knowledge with other colleagues, some teacher educators are unenthusiastic to share their experiences and individual knowledge.

Lack of interpersonal trust among teacher educators is an imperative antecedent of poor knowledge-sharing (Delaney & Huselid, 2006)). There is also little empirical research to test the circumstances of teacher educators' collaboration especially in terms of moving their knowledge sharing behavior (Abrams, Cross, Lesser & Levin, 2003).

### **3. Objectives of the Study**

This study has formulated the following research objectives:

1. To understand and identify teacher educators' perceptions about the impact of HRM practices and knowledge sharing antecedents on teacher educators' knowledge sharing behavior.
2. To understand the outcomes of knowledge sharing in terms of educational institutes and individual competence of teacher educator in Bangladesh.

### **4. Literature Review**

The resource-based view of organization focuses on resources contemporary in the education institutions, including teacher educators, which play a significant role in the utilization and creation of knowledge. In the workplace, teacher educators' collaboration can maintain the human capital pool (skilled teacher educators). This can be managed through supporting knowledge sharing and argument break with the education institutions for the sake of their own teaching professional development. Education institutions of Bangladesh can facilitate teacher educators' collaboration to enhance teacher educators' knowledge and skills. Teacher educators' perceive that informal collaboration is an important antecedent of teacher educators' knowledge sharing to dispense knowledge across education institutions (Abrams, Cross, Lesser & Levin, 2003). Interpersonal trust removes knowledge sharing barriers among educational institute members within education institutions. If individuals do not trust each other, they are far less likely to cooperate and share their knowledge with each other. In fact, educational institute memory is stored in the relationships teacher educators build on the basis of their trust and reciprocity. Individuals cannot know each and every thing of teaching related knowledge and so they have to rely on their networks to achieve tasks (Scarborough, 2003). This paper focuses on individual teacher educators' perceptions about HRM, KM, and the relationship between educational institute and individual capability in Bangladesh. The explanations of the different constructs in this part provide a foundation for the study of HRM practices and knowledge sharing in education institutions. This has guided the framework of the present research, showing causative relationships between HRM practices, knowledge sharing and its outcomes, based on teacher educators' perceptions in Bangladesh.

#### **4.1 Conceptualizing Knowledge in Education Institutions**

In recent years, educational institutes of Bangladesh depend on bureaucratic control over resources to find superior performance has shifted from physical resources to knowledge and skills (Tariq, Aslam, Habib, Siddique & Khan, 2012). The reasons for that shifts are due to recognizing the knowledge as not only information but a resource with asset value which can help education institutions to function more effectively (Swart & Kinnie,

2009). Teacher educators gained their knowledge through their experiences, intelligence, and from academic knowledge. One of the ways to make teacher educators knowledge more effective is when it is shared with other members in institutions. Vanden, Schouten & Simonovski, (2012) contributed to KM research by suggesting that teacher educators' knowledge sharing is one of the key initiatives to managing teacher educators' knowledge in work places.

#### **4.2 Teacher Educators' Knowledge**

Teacher educators' knowledge being a precarious resource can also improve educational institute knowledge and innovation capability through knowledge sharing initiative (Tariq, Aslam, Habib, Siddique & Khan, 2012; Shamsie & Mannor, 2013). In the current knowledge economy, education institutions, particularly KIOs, that have skilled and experienced teacher educators, cannot obtain competitive advantage until education institutions utilize their teacher educators' knowledge. Wang, Yang & Chou, (2008), in their review article, highlight the importance of managing teacher educators' knowledge in education institutions in Bangladesh. This paper focuses on face-to-face, informal interactions where teacher educators share their implicit knowledge due to trust in other colleagues, without the influence of management. Education institutions may lose teacher educators' knowledge, if they fail to recognize it.

#### **4.3 Teacher educators' Recruitment and Selection**

Recruitment and selection starts from the position of understanding the job vacancy, employment laws, minimum qualifications and the job description before advertising the job in the labor market, followed by application and screening (Wang & Noe, 2010). Some research scholars suggest that the recruitment and selection cycle starts with advertising in order to attract potential teachers, which creates a pool of applicants (Palomeras & Melero, 2010). In both cases, short-listed candidates are interviewed, followed by a qualifications check and reference check to make a final decision about selection. Most education institutions provide job orientation and a conditional probationary period before final confirmation. All these selection steps are designed to recruit and select a candidate based on the candidate's experience, skills and knowledge. A precise and sophisticated selection system can help education institutions identify suitable teachers with potential to perform.

#### **4.4 Rewards and Recognition**

A rewards system is one of the main components of HRM practices that can enhance teacher educators' motivation to share knowledge. To achieve this it is argued that rewards, promotions, and recognition may be given to those teacher educators who spend their time facilitating and working with other teacher educators, especially in collaboration (Vanden, Schouten & Simonovski, 2012). Teacher educators' knowledge sharing may be supported by imperceptible rewards (such as promotion), recognition of teacher educators' teaching skills and enhancing teacher educators' expertise. Education institutions of Bangladesh can facilitate knowledge sharing

activities through group-based reward systems. Group based rewards are given to a whole group based on its achievements (Palomeras & Melero, 2010). Rewards to individuals can create a sense of legal obligation to share their personal knowledge with other members (Wang & Noe, 2010). Therefore, one of the objectives of this research paper is to investigate the impact of rewards and recognition on teacher educators' knowledge sharing behavior in a developing country where knowledge creation, sharing and management are in their infancy.

#### **4.5 Teacher educators' Collaboration**

Teacher educator's knowledge plays an energetic part in building educational institute knowledge. However, it requires a social collaborative approach to utilize it fully (Wang, Yang & Chou, 2008). Teacher educators' collaboration when goal is knowledge sharing can help to build knowledge communities within education institutions (Schuler & MacMillan, 1984). Educator collaboration for informal knowledge sharing occurs when individuals in the same professional field meet informally and share their experiences. Nonaka (2003) suggest that sharing knowledge with colleagues in a teamwork environment can improve educational institute knowledge capability. Studies have shown that educator participation is positively related to performance, satisfaction, and productivity of teacher educators.

#### **4.6 The Role of Trust**

Trust can be constructed up by similarities due to repetitive interactions among individuals, interests, and customs that can lead to self-belief of educators. Teacher educators' interpersonal trust improves through personal similarities (Yang & Wanb, 2004; Quinn, Anderson & Finkelstein, 2009). Interpersonal trust can be built on in work places when teacher educators and bosses mingle in a work environment that is less bureaucratically administered. There are several methods in building interpersonal trust among teacher educators. On the other hand, teacher educators perceive that a lack of interpersonal trust between teacher educators and their bosses can lead to poor knowledge integration and imperfect information sharing (Jayasingam, Ansari & Jantan, 2010).

#### **4.7 Teacher Educator's Knowledge Sharing**

Teacher educators' knowledge based on their experiences plays a pivotal role in KIOs. Sharing knowledge with other colleagues helps create knowledge communities (Al Nawakda, Fathi, Ribiare & Mohammed, 2008). Knowledge communities in an education institution promote a collaborative learning, where teacher educators can share their knowledge when asked to do so by other colleagues (Cabrera & Cabrera, 2002). Sharing job related knowledge can help teacher educators perform an assignment more effectively.

#### **4.8 Educational Institute Capability**

The educational institute capability variable covers such factors such as student satisfaction through developing teaching quality. Further, educational institute capability

variables are the ability to attract and retain teacher educators to better compete in the education areas (Rudman, 2002; Cabrera & Cabrera, 2002). Knowledge sharing creates a knowledge community that helps skilled teacher educators be part of the learning community and stay in the education institutions (Al Nawakda, Fathi, Ribiare & Mohammed, 2008).

#### 4.9 Educator's Individual Capability

Teacher educators obtain response of their shared knowledge when shared knowledge is applied in the educational institute context in Bangladesh. This procedure also validates the shared knowledge and improves individual capability. Validity of shared knowledge provides a sense of confidence for teacher educators that their knowledge is valuable and that it does not expired with the use of new technology (Sveiby & Simons,2002). The HRM practices drive and influence knowledge sharing, and the supporting literature has been reviewed.

#### 4.10 HRM, Knowledge Sharing and Capability

Teacher educators' knowledge sharing is linked to educational institute capability because both educational institute knowledge and learning capability are entrenched in the educator interactions ((Al Nawakda, Fathi, Ribiare & Mohammed, 2008). HRM practices can shape educator skills and attitudes to improve, not only their own capability, but also the overall educational institute capability through teacher educators' knowledge sharing (Zahra, George,2002; Teece, Pisano & Shuen,1997). Sharing personal knowledge influences teacher educators' learning, which can improve educational institute learning capability. Educational institute learning capability has been used to analyze educational institute learning and the creation of sustainable competitive advantage through exploiting teacher educators' prior knowledge (Cabrera & Cabrera, 2002). Education institutions of Bangladesh can hire teacher educators with high levels of education to facilitate a better flow of knowledge and increased overall knowledge capability in a collaborative environment. In line with the research objectives and based on the extensive literatures reviewed, the following research framework and hypotheses were developed for the study.

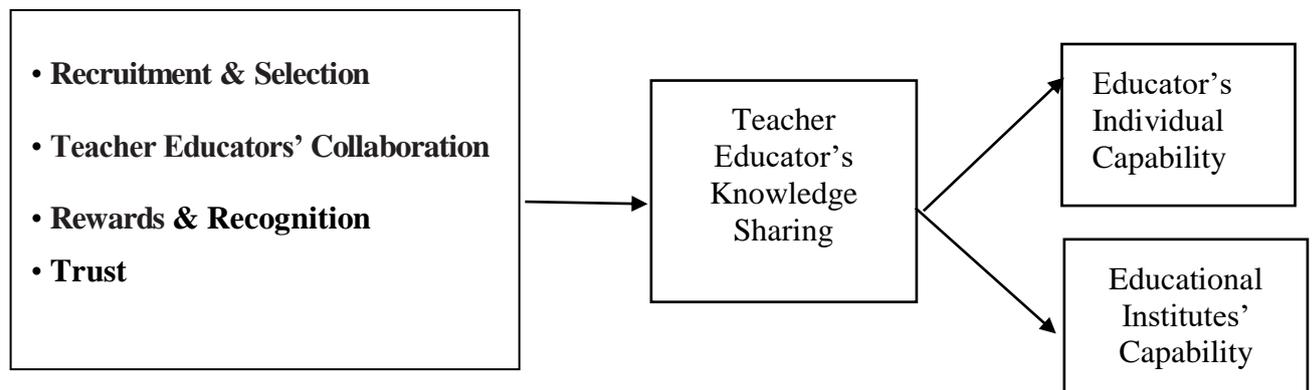


Figure 1: Research Framework of the Study

- H1:** Teacher educators' recruitment and selection have a positive effect on teacher educators' knowledge sharing behavior.
- H2:** Rewards and recognition have a positive effect on teacher educators' knowledge sharing behavior.
- H3:** Teacher educators' collaboration in terms of their participation has a positive effect on teacher educators' knowledge sharing behavior.
- H4:** Trust has a positive effect on teacher educators' knowledge sharing behavior.
- H5:** Teacher educators' knowledge sharing has a positive effect on educational institute capability.
- H6:** Teacher educators' knowledge sharing has a positive effect on individual capability.

## **5. Methods**

To address the research questions of this research paper, a survey questionnaire was designed for the purpose of data collection from different divisions of Bangladeshi education institutions. The survey comprised demographical questions, and questions regarding teacher educators' perceptions about HRM practices, trust, teacher educators' knowledge sharing, educational institute capability and individual capability. Respondents were asked to answer the questions on the five point Likert scale, ranging from '1 = Strongly Disagree' to '5 = Strongly Agree', which was designed to measure the constructs of this research paper. A self-administered survey was employed for data gathering. During data analysis, rigorous and sophisticated statistical techniques applied, questionnaires can easily be standardized, tested and validated data from sample populations. The results can be generalized, and considered as relatively accurate (Dillman, 2007). However, survey limitations include relatively lower response rates, less opportunity to further define responses (Kidder & Fine, 1987), and poor interviewer control (Fan, Thompson & Wang, 1999).

## **6. Population and Sample**

The target population of this study consisted of teacher educators who use their experience and knowledge in education institutions of Bangladesh. The target population consisted of full-time and part time teacher educators working in education institutes from different divisions of Bangladesh. The 190 useable responses came from teacher educators and the response rate was 70.37%. The sample frame was comprised of full time educators from both public and private education institutions of three different division of Bangladesh. A total of 270 questionnaires were distributed to 29 educational institutes Dhaka, Rangpur and Khulna divisions in Bangladesh.

## 7. Results

### 7.1 Response Rate

A total of two hundred seventy (270) sets of questionnaires were distributed among the respondents (teacher educators) for the purpose of this study. A request letter was also placed to the respondents mentioning the purpose of the study, how the results would be used, and the terms of anonymity and confidentiality. The table below shows the details of the response rate of this study.

Table-1: Response of questionnaire survey

Descriptions	Response
Number of questionnaires distributed	270
Number of questionnaires returned	215
Number of excluded questionnaires	25
Number of usable questionnaires	190
Questionnaires not returned	30
Response rate	70.37%
Valid response rate	61.33%

Table-1 shows that out of 270 distributed questionnaires, 215 were collected back giving a response rate of 70.37 percent. On the other hand, 25 sets of returned questionnaires were rejected because some of them were incomplete, i.e., there were missing data in most of the cases. Excluding the 25 sets of questionnaire from analysis is vital, as they do not represent the sample (Hair, et al., 2010). Finally, a total of 190 filled in questionnaires made up the valid responses for this study and the response rate was 61.33 percent. Thus, the response rate of 61.33 percent achieved in this study is adequate as per the suggestions of Sekaran and Bougi (2010), who recommended a minimum of 30 percent response rate in a survey research.

### 7.2 Descriptive Statistics Analysis

Descriptive analysis examines the general statistical description of variables in the study, which includes the minimum value, mean, maximum value and standard deviation of all variables. Whereby, the minimum depicts the lowest responses from the respondents, mean depicts the average responses from respondents, maximum represents the highest responses from the respondents and standard deviation represents the amount of variability in the distribution of a variable. The present study collected all the responses with a five point Likert scale ranging from 1 for strongly disagree to 5 for strongly agree. Table 4.3 shows the descriptive statistics of the variables used in this study. The statistics include minimum and maximum value, mean and standard deviation of the research variables, which are recruitment

and selection, rewards and recognition, educator collaboration, teacher educators' knowledge sharing trust, educational institute capability and individual capability.

Table-2: Descriptive statistics of variables

<b>Variables</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Maximum value</b>	<b>Minimum value</b>
Recruitment and selection(RC)	3.598	0.642	5	1
Rewards and recognition(RR)	3.757	0.545	5	2
Educator collaboration(EC)	3.632	0.557	5	1
Teacher educators' knowledge sharing(TEKS)	3.653	0.571	5	2
Trust(T)	3.872	0.638	5	2
Educational institute capability(EIC)	3.345	0.358	5	2
Individual capability(IC)	3.790	0.603	5	1

The descriptive statistics shown in table-2, represent that all the variables have got a maximum response of 5 and in the case of recruitment and selection, educator collaboration and individual capability have got a minimum response of 1; and rewards and recognition, teacher educators' knowledge sharing, trust and educational institute capability have got a minimum response of 2.

The average answer is depicted in the mean column whereby the mean value for recruitment and selection is 3.598, rewards and recognition is 3.757, educator collaboration is 3.632, teacher educators' knowledge sharing is 3.653, trust is 3.872, educational institute capability is 3.345 and individual capability is 3.790. So all the means are above 3 and close to 4. Variability on the other hand, can be assessed by examining the values of the standard deviation column whereby it measures the amount of variability in the distribution of a particular variable. Standard deviation values measure how concentrated the data are around the mean, the more concentrated the smaller the standard deviation value. Similarly, if there is a great deal of similarity between points, the standard deviation will be quite small. From the table-2, the standard deviation for all the variables is below 1. Based on the results obtained, the standard deviations for all the variables are relatively small which further indicates that a great deal of similarity exists between data points.

### 7.3 Normality Test

Normality as an essential assumption of multivariate analysis refers to the shape of the data distribution of a metric variable and its correspondence with the normal distribution (Hair et al., 2010). Nevertheless, recent works by Hair et al., (2010) as well as Hair et al., (2014) suggested that researchers should consider the data distribution. Their argument was based on the view that, extremely skewed data increase bootstrap standard errors (Chernick, 2008), and thus may underestimate the statistical significance of path coefficients (Hair, Babin & Anderson, 2010). Consequently, this study employed multivariate normality to assess the data distribution using kurtosis (i.e., the peakedness or flatness of the distribution compared with the normal distribution) and skewness (i.e., the balance of distribution at centered or symmetrical with about the same shape on both sides) (Hair et al., 2010). Hair et al., (2010) further argued that, both the skewness and kurtosis have empirical measures in various statistical programs. However, based on the result generated as shown in Table-3, both the skewness and kurtosis of metric variables were below the critical value of (+,-) 2.58 (Bhattiet al., 2012) which confirms the normality of data for this study.

Table-3: Normality test results

Variables	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Recruitment and selection	-.467	.176	.125	.349
Rewards and recognition	-.075	.176	-.545	.349
Educator collaboration	-.198	.176	-.345	.349
Teacher educators' knowledge sharing	-.357	.176	.667	.349
Trust	-.537	.176	.366	.349
Educational institute capability	-.804	.176	2.245	.349
Individual capability	-.437	.176	.657	.349
Valid N (listwise)192				

### 7.4 Reliability Test

The first step is to assess the reliability and validity of the constructs in the measurement model (outer model). Reliability refers to the internal consistency of data (Hair et al., 2010). Cronbach's alpha and Composite reliability values are used to assess reliability

of constructs. For reliability, all constructs should have Cronbach alpha values above the threshold of 0.70 (Hair et al., 2010) and the composite reliability values of the all constructs should be greater than the threshold of 0.70 (Raykov & Marcoulides, 2006). As shown in table-4, all the Cronbach alpha and composite reliability values are above 0.70 which indicates good internal consistency of data (Hair et al., 2010) and the reliability of all constructs are established in this study.

Table-4: Measurement properties of constructs

<b>Variables</b>	<b>Cronbach alpha</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted(AVE)</b>
Recruitment and selection(RS)	0.871	0.879	0.523
Rewards and recognition(RR)	0.817	0.861	0.558
Educator collaboration(EC)	0.853	0.889	0.557
Teacher educators' knowledge sharing (TEKS)	0.827	0.883	0.615
Trust(T)	0.913	0.948	0.787
Educational institute capability(EIC)	0.825	0.863	0.562
Individual capability(IC)	0.815	0.832	0.521

### **7.5 Convergent Validity**

Convergent validity involves the degree to which individual items reflect a construct converging in comparison to items measuring different constructs (Raykov & Marcoulides, 2006). To assess convergent validity, construct's average variance extracted (AVE) and factor loadings are used. Convergent validity is established when all constructs have an average variance extracted (AVE) value greater than 0.50 (Raykov & Marcoulides, 2006). As shown in table-4, all the values of AVEs are above 0.50, which confirms the convergent validity of constructs. The absolute standardized outer loadings of items are above 0.50. Neuman (2003) believes that, loadings below 0.5 still are acceptable if there exists other indicators in the block for comparison. Hair et al., (2012) suggested that an item loading of 0.40 could be acceptable if the AVE of a particular construct exceeds the cut off value of 0.50. Table-4 shows that all the item loadings are higher than 0.50 and also the items are significant which confirms convergent validity at indicator level. Therefore, 0.50 and above AVE values of all the constructs and, 0.50 and above values of item loading confirm the convergent validity of constructs in this study.

## 7.6 Discriminant Validity

Discriminant validity refers to the extent to which a particular latent construct is different from other latent constructs (Duarte & Raposo, 2010). Discriminant validity is established when the indicators loadings on their measured construct are all higher than the cross-loadings on other constructs and the square root of each construct's average variance extracted (AVE) is larger than its correlations with other constructs (Raykov & Marcoulides, 2006). The first assessment of discriminant validity is to examine the indicators' loadings with respect to all construct correlations. Smart PLS algorithm function is used to produce the cross loadings of all items. The items are well loaded on their constructs much higher than the cross loadings on other construct which satisfies the first assessment of the measurement model's discriminant validity (Chin, 1998). The square root of the AVE of each construct was compared with the correlation between that construct and the other constructs. As shown in table-5, the square root of the AVEs exceeds the highest correlation between that construct and the other constructs, providing another support of discriminant validity (Chin 1998; Fornell & Larcker, 1981) of the constructs in this study.

Table-5: Discriminant validity assessment

	<b>RS</b>	<b>RR</b>	<b>EC</b>	<b>TEKS</b>	<b>T</b>	<b>EIC</b>	<b>IC</b>
<b>RS</b>	<b>0.744</b>						
<b>RR</b>	0.124	<b>0.715</b>					
<b>EC</b>	0.023	0.046	<b>0.752</b>				
<b>TEKS</b>	0.095	0.272	0.043	<b>0.789</b>			
<b>T</b>	0.351	0.157	0.004	0.106	<b>0.763</b>		
<b>EIC</b>	0.248	0.072	0.098	0.080	0.038	<b>0.889</b>	
<b>IC</b>	0.223	0.415	0.267	0.604	0.230	0.338	<b>0.739</b>

\*Square root of the AVE on the diagonal

## 7.7 Structural Model Assessment for Hypotheses Testing

Having assessed the measurement model for reliability and validity, the next step is the assessment of the structural model. In the structural model of PLS analysis, hypotheses testing can be done. Here the path coefficient, t statistics, p values and error are considered. Table-6 shows the findings of the structural model for hypotheses testing. To test the proposed hypotheses, the path coefficient between latent variables and their significance is assessed. After running a PLS model, estimates are provided for the path coefficients, which represent the hypothesized relationships linking the latent constructs. In order to test the main hypotheses, the bootstrap approach was used to assess the significance of hypothesized relationships in the path model. Five thousand (5000) resample were used to perform the

bootstrap (Chin, 1998). The number of bootstrap cases equal to the original number of observations to generate standard errors and obtain t-statistics (Hair et al., 2010). A hypothesis can be accepted if it is significant at 5 percent ( $p < 0.05$ ) level or if the t statistics is higher than 1.96 (Hair et al., 2010).

Table-6: The Structural estimates

Hypotheses	Path Coefficient	Standard Error	T-Value	P-Value	Level of Significance
H1	0.213	0.060	3.255	0.000	***
H2	0.229	0.049	2.368	0.018	**
H3	0.549	0.067	8.264	0.000	***
H4	0.219	0.063	3.562	0.000	***
H5	0.173	0.060	2.057	0.041	**
H6	0.218	0.049	2.377	0.018	**

Note: \*\* $P < 0.05$ , \*\*\* $P < 0.01$

Hypothesis 1: Teacher educators' recruitment and selection have a positive effect on teacher educators' knowledge sharing behavior. The findings of present study prove this hypothesis. The path coefficient here is 0.213 with a positive sign and this value is significant at 1 percent ( $t, 3.255; P < .01$ ) level. So, it is accepted that Teacher educators' recruitment and selection have a positively effect on teacher educators' knowledge sharing behavior.

Hypothesis 2: Rewards and recognition have a positive effect on teacher educators' knowledge sharing behavior. The path coefficient for this variable is 0.229 and the t statistic is 2.368 which is significant at 5 percent level ( $P < 0.05$ ). So the findings reveal that rewards and recognition have a positively effect on teacher educators' knowledge sharing behavior which leads to the decision that hypothesis 2 is accepted.

Hypothesis 3: Teacher educators' collaboration in terms of their participation has a positive effect on teacher educators' knowledge sharing behavior. Here path coefficient value of 0.549 and the corresponding t statistics is 8.264 which is significant at 1 percent level ( $p < 0.01$ ). Therefore, hypothesis 3 is supported.

Hypothesis 4: Trust has a positive effect on teacher educators' knowledge sharing behavior. This hypothesis is supported as the path coefficient has a positive value of 0.219 and the corresponding t statistics is 3.562 which is significant at 1 percent level ( $p < 0.01$ ). Therefore, trust has a positively effect on teacher educators' knowledge sharing behavior.

Hypothesis 5: Teacher educators' knowledge sharing has a positive effect on educational institute capability. This hypothesis is supported as the path coefficient value is

0.173 with a positive sign and the corresponding t value is 2.057 which is significant at 5 percent level ( $p < 0.05$ ). Therefore, it is proved through this empirical study that teacher educators' knowledge sharing has a positively effect on educational institute capability.

Hypothesis 6: Teacher educators' knowledge sharing has a positive effect on individual capability. This hypothesis is supported as the path coefficient value is 0.218 with a positive sign and the corresponding t value is 2.377 which is significant at 5 percent level ( $p < 0.05$ ). Therefore, it is proved through this empirical study that teacher educators' knowledge sharing has a positive effect on individual capability.

### 7.8 Effect Size Assessment ( $f^2$ )

Apart from the assessment of coefficients of determination for endogenous variables, the changes in the  $R^2$  values when a particular exogenous construct is omitted from the research model can be employed to estimate whether the omitted construct has a significant effect on the endogenous construct (s). This degree is called effect size. Simply put, effect size is the relative effect of particular exogenous latent variable on endogenous latent variable by means of changes in the coefficient of determination (Chin, 1998). It is computed by following the formula;  $R^2 \text{ include} - R^2 \text{ exclude} / 1 - R^2 \text{ include}$ . According to Cohen's (1988) argument,  $f^2$  values of 0.02, 0.15 and 0.35 are described as having weak, moderate and strong effects respectively. The effect sizes of the five exogenous variables of the structural model are shown in table-7 below:

Table-7: Effect size

Variables	$R^2$ include	$R^2$ exclude	Effect size
Recruitment and selection(RS)	0.745	0.571	0.176
Rewards and recognition(RR)	0.745	0.634	0.084
Educator collaboration(EC)	0.745	0.562	0.268
Teacher educators' knowledge sharing (TEKS)	0.745	0.642	0.118
Trust(T)	0.745	0.634	0.064
Educational institute capability(EIC)	0.745	0.608	0.128
Individual capability(IC)	0.721	0.631	0.136

As shown in table-7, the effect sizes for recruitment and selection, rewards and recognition, educator collaboration, teacher educators' knowledge sharing, trust, educational institute capability and Individual capability are 0.176, 0.084, 0.268, 0.118, 0.064, 0.128 and 0.136 respectively. As per Cohen's (1988) criterion, rewards and recognition, trust have small effect size, educator collaboration(EC), recruitment and selection(RS) large effect

size while individual capability(IC), educational institute capability(EIC), teacher educators' knowledge sharing (TEKS) falls in the medium effect size range (Cohen's,1988).

## **8. Implications and Recommendations**

Education institution that is trying to recover the formation and development of educational institute knowledge should give consideration to its HRM practices. The results suggest that educator engagement through teamwork as a part of HRM practices has a significant impact on their knowledge-sharing behavior. Experienced teacher educators who have skills and are confident in their abilities to achieve can share their skills and abilities with other colleagues through participation. Collaborative activities are important aspect of a teacher educators' learning that helps to bolster interpersonal relationships in the educational institute. Educator collaboration and participation with colleagues is an important source of informal learning for both experienced and inexperienced teacher educators. Professionals may focus on educator learning and development by building an environment where teacher educators support each other in the learning process. One method that can be effective in improving teacher educators' collaborative practices is by reducing the lack of trust, conflicts and distance (physical and emotional) among teacher educators. One way to improve interpersonal trust between teacher educators is by the use of team assignments.

Hence, skilled teacher educators are asset in any education institutions, and administrators could support knowledge sharing and a learning culture in their education institutions by engaging skilled teacher educators in team work and collaborative activities. Recruiting groups of experienced and talented individuals cannot by itself guarantee to provide education institutions with a competitive advantage over their competitors, and individual teacher educators need to work together to achieve improved educational institute capability. Educational institute support to create interpersonal trust through the use of collaborative activities may reduce the barriers to individual teacher educators' knowledge sharing behavior (Jayasingam, Ansari & Jantan, 2010). This paper contributes to existing theory by demonstrating the antecedents of teacher educators' knowledge sharing through teacher educators' perceptions. This research paper investigates the antecedents and outcomes of teacher educators' knowledge sharing in knowledge intensive education institutions of a developing country (different divisions of Bangladesh). Overall, the findings of this research paper support the notion that specific HRM practices can be used as a tool to improve teacher educators' knowledge sharing behavior within education institutions, which is consistent with previous research (Olander & Hurmelinna-Laukkanen, 2010; Delaney & Huselid, 2006). However, there is a strong need to reorder HRM practices in educational institutes as teacher educators perceive that rewards as part of HRM practices are not as high a priority as teacher educators' collaboration and participation. A learning culture in work places is rooted in teacher educators' collaborative activities to gain competitive advantage in the current dynamic education environment.

## 9. Conclusion

Teacher educators' knowledge has been broadly considered as an important resource to provide sustainable competitive advantage to education institutions in Bangladesh. However, in the current knowledge economy, one of the challenges faced by education institutes is to manage this resource effectively to build a human capital pool. One of the reasons for this challenge is that knowledge in institutes is not symmetrically distributed. There is also little empirical research to test HRM and knowledge sharing relationships through the lens of teacher educators' perceptions. The objective of this research paper is to address this research gap by examining teacher educators' perceptions on the impact of HRM practices on teacher educators' knowledge sharing and knowledge sharing outcomes. Collaboration with other members in education institutions for collecting knowledge is part of learning process and leads to a better understanding of contextual knowledge. When teacher educators collaborate for now-whom to acquire knowledge, this form of collaboration acts as educator recognition and may influence knowledge sharing behavior. The findings of this research paper show that trust has a strong positive effect on teacher educators' knowledge sharing behavior. The latent construct trust has two dimensions in the results of this research paper. Personal similarities and common goals of teacher educators may boost their interpersonal trust in each other in their education institutions. Most teacher educators are entitled to annual financial bonuses and regular pay rises, irrespective of an educator's contribution in the education institutions. Such routine rewards may not influence teacher educators to share their experiences with other colleagues. It can be argued that routine reward systems are given on a regular basis, irrespective of an educator's participation and can discourage knowledge sharing behavior in the workplace. This research paper proposed reordering priorities around HRM practices, and education institutions may focus on educator collaborative practices through building trust to improve teacher educators' knowledge sharing behavior that can eventually improve individual capability.

These conclusions have a number of implications for educators and Bangladeshi education policymakers. The significant effect of knowledge sharing on individual capability suggests that sharing knowledge helps to improve individuals' learning ability. Bangladesh government has a policy to send different parts of Bangladeshi professionals overseas to improve their skills and knowledge. Similarly, sometimes foreign professionals are hired on short or long term contracts to improve the Bangladeshi professional capability at home. This research paper contributes to the HRM literature in a number of ways by demonstrating that both HRM and KM are emerging, interlinked research concepts. The position taken by this research paper is that technology is a supplement not a substitute for teacher educators' knowledge sharing behavior. This paper tests the HRM and KM causative relationships in Bangladeshi education institutions. Academically, there are empirical studies that have examined the knowledge management enablers in different parts of Bangladeshi educational institutes and discuss knowledge sharing successes through its antecedents and managing knowledge in general. However, there is dearth of empirical research in the field of two disciplines, HRM and KM, in different parts of Bangladeshi education sectors. The reason for such little research may be that KM is in its infancy in different parts of Bangladesh. To

address this research gap, this research paper examined the effect of HRM practices on teacher educators' knowledge sharing behavior and empirically tests the knowledge sharing outcomes at educational institute and individual level.

This paper highlights the importance of teacher educators' collaboration in knowledge based education institutions. Due to the current dynamic education environment, teacher educators of knowledge based education institutions want to be part of the collaborative culture for their own professional development. The key aspect of educator collaborative practices is to prevent knowledge loss that could occur due to educator's turnover. This paper established the importance of teacher educators' learning through collaborative activities, and professionals could focus on teacher educators' learning and development through building an environment where teacher educators support each other in the learning process. The findings of this research paper are based on one sector in different parts of Bangladesh, and future research can be conducted by collecting data from other knowledge based sectors. A comparative study between private and public education institutes can help to gain better insights regarding teacher educators' knowledge sharing behavior. Several other factors besides HRM practices can influence educator' knowledge sharing behavior in institutes, and future research can unfold the influence of such factors, for example, leadership, self- efficacy, and diversity on knowledge sharing behavior.

## **10. Limitations**

The concepts of KM, HRM and KM in education institutions are relatively new in the different parts of Bangladeshi education environment. Most teacher educators were not aware of a KM philosophy due to the lack of previous research in the field of HRM related to KM in the different parts of Bangladeshi context. Another factor that may have caused the low response rate is the length of the questionnaire. One of the major limitations during data collection was poor access to education institutions. This research paper revised the proposed model based on exploratory factor analysis results and designed a structural model, and also finally designed an alternative model for better model fit. The alternative should be considered as tentative until cross-validated, using a different set of data.

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