

EFFECT OF HUMAN RESOURCE INVESTMENT ON THE FINANCIAL PERFORMANCE OF PUBLICLY LISTED BANKS IN BANGLADESH

Rubaiya Nadia Huda¹, Rifat Iqbal², Quazi Tafsirul Islam²

ABSTRACT

Human Resource (HR) Accounting is a well-known concept, as indicated in several past studies, which demonstrates the study of investments made on different HR components and attempts to make sense of those expenses in the age of evidence-based management. In this study, we have tried to identify and establish a relationship between Human Resource investment and the company's financial performance. The study focuses on the impact of Human Resource investment on the financial performance of banks in Bangladesh. This research is carried out using secondary data from the financial statements of listed banks under the Dhaka Stock Exchange (DSE). Financial information of all thirty publicly listed banks under the Dhaka Stock Exchange (DSE) are collected for a period of five years from 2013 to 2017. For this study, we use HR expense as a measure of the human resource investment and analyze the relationship between HR expense and bank's financial performance. It has been carried out by taking into account a variety of industry factors and bank-specific variables. Regression analysis is used to test the hypothesis developed for the study. Results indicate a positive relationship between Human resource investment and the bank's financial performance.

Keywords: Human Resource Investment, Human Capital, Financial Performance, Human Resource Accounting, Publicly Listed Banks, Bangladesh, Human Resource Management, ROE, ROA, Profit Margin.

1. INTRODUCTION

The early 1980s instigated the idea of employees being significant sources of revenues and profits rather than the practice of viewing them as costs (Liu, Combs, Ketchen & Ireland, 2007). Many theorists and practitioners also believe that individual employee performance has implications for the firm-level outcomes,

¹Lecturer, Department of Accounting and Finance, and Coordinator Assessment, School of Business and Economics, North South University, Bangladesh.

²Lecturer, Department of Management, School of Business and Economics, North South University, Bangladesh.

which collectively have the potential to become a source of competitive advantage that is unique (Huselid, 1995). Therefore, there has been a shift in the trend toward a Human Capital intensive economy as a growing number of organizations are adopting the belief that organizational success lies in intellectual capabilities rather than its physical assets (Flamholtz, 2012). The idea that signifies the Human Resources of an organization as assets also calls for adopting the practice of Human Resource Accounting (HRA) by reputed organization.

Human Resource Accounting (HRA) has been regarded as a significant management tool (Flamholtz, Bullen & Hua, 2002) that helps to enhance management decision-making by quantifying the cost of recruiting, hiring, compensating, and training employees. The role of HRA is not only to provide numerical information to aid managerial decisions, but also to monitor and quantify the costs and value of people in human resources perspective (Flamholtz, Bullen & Hua, 2002). Thus, the growing importance of HRA has been reflected in many organizations' management report around the world, including some developing countries like Bangladesh.

In the current literature there have been several studies examining the significance of a firm's Human Resources Management (HRM) practices over its corporate performance. Huselid (1995) evaluates the relationship between High Performance Work Practice and corporate performance. The paper shows that High Performance Work Practice has significant impact on employee performance and firm's financial outcomes. Berk & Kaše (2010) finds that organizations that spend significant amount of money on training and developments usually perform better than their competitors, who spend lesser or none at all. As per Becker & Gerhart (1996) Human Resource decision influence organizational performance by either improved organizational efficiency or increased corporate revenue. In another paper, Fitz-enz (1997) finds that a firm loses approximately \$1 million with every ten managerial and professional employees leaving the organization.

However, very limited empirical evidence exists in the context of Bangladesh. Most of the papers on Human Resource Management in Bangladesh study the importance of human resource practice and its theoretical aspects. Siddiquee (2003) assesses the existing limitations and future challenges of human resource management in Bangladesh civil service. The paper finds that there is a lack of human resource planning and structure in Bangladesh civil service, which in turn affect the quality and performance of civil service. Absar (2010), in a study on the impact of Human resource practice on job satisfaction in manufacturing companies in Bangladesh, finds that human resource planning, development and training have positive effect on job satisfaction. In another paper Majumder (2012) finds that employees

in the private banking sector in Bangladesh are not satisfied with compensation package, career growth, training and development, management style, job design responsibilities. However, no study has assessed the effect of human resource investment on financial performance of firms in Bangladesh.

This study aims to fill up the above mentioned gap and add some more evidence that HR investment leads to increased financial performance, in the fields of human resource accounting especially in context of Bangladesh. The objective of this paper is to examine the impact of Human Resource investment on the financial performance of banks in Bangladesh. In our study we use multivariate regression analysis on panel data of 30 listed banks in Bangladesh over a period 5 years (2013 to 2017). As a proxy of human resource investment we use HR expense which includes both compensation and training. As independent variables we use Return on Equity (ROE), Return on Asset (ROA), and Profit Margin as indicators for financial performance. Results show that human resource investment has a significant positive impact on banks' ROA. Profit Margin and ROE also show positive relationship with HR investment. However, a strong significant relationship has not been found.

Thus this paper contributes as a new addition of how to determine the impact of human resource investment on firm's financial performance from Bangladesh context. Bangladesh is a developing country with growing economy. Because of its high population, the country has an abundance of human capital compared to other resources. An efficient and effective HRM practices could be a driving force for Bangladesh's economic development (Absar, 2014). Findings of this study will provide an insight about the level of human capital investment by banks in Bangladesh and its impacts on the financial performance. This paper will also be an addition to HR accounting from emerging economy perspective.

The paper is structured as follows: the next section reviews the literature on HR Investment and its impact on financial performance. Then we move to research methodology describing dependent and independent variables along with the research design. The next section offers detail discussion on data analysis and findings. Finally we have the discussion section, analyzing the results in the light of past literature, followed by the conclusion and future research section.

2. LITERATURE REVIEW

As Beer, Spector, Lawrence, Mills, & Walton (1984) explains it, the idea of considering people as a significant driver in terms of achieving competitive edge over others in the industry and thus considering Human Resource functions as a critical decision

making tool is a relatively new idea in the history of management studies. However, starting from the early 70s and until today, we see detailed research by prominent authors establish a correlation between HR investment and organizational performance (Huselid, 1995). Chowhan (2016) emphasizes the importance of understanding the relationship between HR practice, strategy, and organizational performance is an essential factor worth researching as it could be a black box worth venturing onto.

Human Resource Investment (HRI)

Previous research suggests that when employers consider employees as a source of competitive advantage and in turn invest in developing their knowledge, skills, and abilities, then the skilled, motivated more engaged workforce returns the favor by being as contributing towards their company as they can and help increase firm performance (Huselid, 1995; Takeuchi, Lepak, Wang, & Takeuchi, 2007). From an organizational perspective, in return for the investment in their employees, firms expect employees to have high levels of commitment toward the employer. In many cases, these investments take the form of training, higher compensation, and better working environments (Lado & Wilson, 1994; Lee & Miller, 1999; Combs, Liu, Hall & Ketchen, 2006).

HR Accounting (HRA)

HR Accounting (HRA) is not a new idea; however, as it indicates the subject hasn't always been an idea that is well researched and accepted. According to American Accounting Association (1973), HRA is the process of accumulating and analyzing HR investment data and then providing it to parties who will make sense of the data; it is equally useful in both managerial and financial accounting terms. The idea is to measure the human value of employees added by investing in different Human Resource components (Toulson & Dewe, 2004).

HRA, in today's world, has three different applications. As Flamholtz (1999) explains in his research the first is to provide organizations with the cost and value of HR, the second is to provide a tool to help managers make evidence-based decisions relating to HR components, and the third is to convince management to consider different financial and non-financial HR metrics as an integral component of organizational decision making.

Relationship between HRI and HRA

Human Resources Investment can be related to the Human Capital Theory - a concept introduced in 1960 by Theodore Schultz. Studies in support of this idea

indicate that Human Resource Management practices represent an investment in human capital (Flamholtz & Lacey, 1981)

Though initially developed to study the economic value of education by Schultz (1960), the idea of Human Capital has influenced the numerous previous studies including Huselid's (1995) to emphasize on the significance of a firm's Human Resources Management (HRM) practices over its financial performance. Furthermore, the concept of Human Capital identifies that people possess the skill, experience, and knowledge that have economic value to the firm (Snell & Dean, 1992).

Moreover, to make sense of why employers make investments in different HR functions such as compensation, benefit, and training while they could keep paying what they already pay, we looked into efficiency wage theory. As they emphasize that, paying a higher wage is a factor that reduced turnover and gradually increases employee efficiency. Chua, Lim, Ter & Chew (2014) and Katz (1986) also mention that a comprehensive approach towards HR investment for their similar study would include salary, provident fund, fringe benefits such as medical, transportation, etc. which is precisely what we intend to do for this study. Also, if we consider employee salary and other benefits as the hygiene factors in light of Herzberg's widely applied Two-Factor Theory (Herzberg, 1971), the absence of these can form dissatisfaction. The same theory suggests, other HRM practices, e.g. employee training, providing better pay, and making employees feel secure can be several ways to keep the employees satisfied, which may otherwise result into high turnover among employees and lamentable financial burden (Gursoy & Swanger, 2007; Koys, 2003; Schneider, 1991). According to Cavanaugh & Noe (1999) and Kluytmans & Ott (1999), this happens because a nonverbal psychological contract between the employee and employer takes place when employers spend on training and developing employees. As employees receive the resources they need, they are expected to remain internally employable, and thus a skilled employee will always result in being more productive (Colakoglu, Allen, Miah & Bird, 2016).

Following the same trail, researchers have also argued that firms that spend significantly on training and developments usually outperform their competitors who have less or no investment in training and development at all (Berk & Kaše, 2010). Fitz-enz (1997) found that a company loses approximately an average of \$1 million with every ten managerial and professional employees leaving the organization. The finding undoubtedly provides evidence in favor of our work that human resources practices and measures have a compelling effect on a firm's financial indicators. There has been enormous evidence from past literature indicating that the investments in employee training and development are substantial in terms of the organization's financial measures (Bernhardt, Donthu & Kennett, 2000). As

reported by Bartel (1994), organizations that maintained a formal training program from 1981 to 1986 showed at least a twenty percent increase in productivity.

In support of the opinions mentioned above, Becker & Gerhart (1996) justified Human Resource decision is thought to influence organizational performance by either improved organizational efficiency or increased corporate revenue. Moreover, as per other studies, HRM practices enhances a range of organizational performance indicator including Profit Margin (Kalleberg & Moody, 1994) and Return on Assets and Return on Equity (Delery & Doty, 1996).

However, we have also encountered a few authors whose research conclusion deviated slightly from readily agreeing to a significant relationship between HR expense and firm performance. For instance, Pfeffer (1997) acknowledge that there is a relationship between HR expenses and organizational performance cautions that if all HR becomes is to rely on numbers solely, then what remains the difference between HR and Finance (Toulson & Dewe, 2004).

On the other hand, Kwon (2019) and Vithana, Jayasekera, Choudhury & Baruch (2018), explains in their work that although there remains a significant relationship between HCI and organizational performance, it is not immediate, and it takes time for that effect of taking place and becoming visible, thus proposing that the relationship is long term rather than short term. Debates are surrounding the idea that whether compensation is directly related to corporate performance or whether it has to be performance-based compensation that focuses on compensating individual employees who are drivers of organizational performance (Nourayi & Daroca, 2008).

How to Calculate HR Expense

Although there are different approaches to calculating HR expense or HCI of an organization, among all the relevant research, a few variables remained common proposed by all researchers. For instance, Flamholtz (1981) suggested we measure HCI based on two significant expenses. One, acquisition cost and the other is learning cost. Another widespread strategy has been to analyze the change in the market of the company and return on HCI. Since the measurement process varies depending on the situation and none of the methods covers all concerns, Mubarik, Chandran&Devadason (2017) proposed developing a unique approach that incorporates both qualitative and quantitative aspects of HCI.

Most of the authors and researchers in this field focused on three components of Human Resource functions as direct investment in their employees; those are salary

or compensation, cost of training and developing employees giving employees their job security (Roca-Puig, Beltrán-Martín, & Segarra-Ciprés, 2012).

How to Calculate Financial Performance

Prior studies have shown that HRM is integral to firms' strategic activities and contributes to firms' profitability rather than just an operational cost (Delery & Doty, 1996; Huselid, 1995). Numerous past works have been done on the measurement of a firm's profitability. Many researchers used accounting measures as indicators of financial performance (Richard & Johnson 2001; Shrader, Blackburn & Iles 1997; De Meuse, Vanderheiden & Bergmann, 1994). Most commonly used accounting measures are Profit Margin (net income by net sales), Return on Asset (net income divided by average total assets), Return on Investment (net income divided by invested capital) and Return on Equity (net income divided by common stockholders' equity). These ratios represent a firm's earnings and indicate the overall profitability of the firm (Shrader et al., 1997).

On the other hand, some researchers prefer economic measures over accounting measures (Hueslid, 1995; Hirsch, 1991). Economic profit gives the market value measures of profitability, which is mostly measured by Tobin's q (Hirsch, 1991). Tobin's q is calculated by using the market value of the shares and dividing it by the replacement cost of its assets. While accounting measures gives a historical perspective, economic measures give the market perception of both future and current profitability. It is also unaffected by choices of accounting methods, depreciation and other noncash activities and measurement error. However, accounting measures contains additional relevant information that is not given by economic profits (Hirschey & Wichern, 1984). Moreover, market-based measures are mostly related to systematic market trends among all firms, whereas accounting measures depict unsystematic attributes of firms (McGuire, Sundgren, & Schneeweis, 1988).

As stated by Hirschey & Wichern (1984), both accounting and market data give unique measures of profitability. There are researches which use both measures for profitability. Huselid (1995) used both accounting measure and economic measure to capture profitability. For economic measure Tobn's q was used, and for accounting measure, Huselid (1995) used gross rate of Return on Asset, which is calculated by dividing cash flow by gross capital stock. This measure is less affected by depreciation and other non-cash transactions, unlike traditional accounting measures.

Hopkins & Hopkins (1997) used three measures to depict the unique picture of a bank's financial situation: Net Income, Return on Equity, and Deposit Growth. Net

Income was used because it was the most commonly used measure to indicate financial performance. Return on Equity is perceived as the ultimate measure of the strength of any financial institution and is considered as the preferred indicator of a bank's financial performance (Hopkins & Hopkins, 1997). Deposit Growth is exclusive to banking and related financial service industries and is measured by the percentage change in consumer demand deposit. Following Hopkins & Hopkins (1997), Richard & Johnson (2001) used ROE as a measure of financial performance for banks. In general, the appropriate measure will change with the level of analysis, and it will depend on the particular context or research setting (Becker & Gerhart, 1996).

3. RESEARCH METHODOLOGY

We wanted to ascertain whether or not there exists a significant relationship between Human Capital Investment and firm financial performance. In pursuit of that, we came across many different methods of establishing and testing this relationship.

Research Design

We are aiming for secondary quantitative research based on already available published data. We decided to include all the thirty different banks enlisted in the Dhaka Stock Exchange (DSE) to be our sample for the study. The reason for choosing listed banks in DSE is the uniformity of reporting standards and availability of data we seek for the study. For this purpose, we collected financial data of these thirty banks from their audited annual report from the year 2013 to 2017.

Measures

We used SPSS to run different analysis on the data to see the possible relationship among the different variables on concern, analysis like multivariate regression on panel data was run for the mentioned purpose. Our hypothesis based on our agenda of this research is;

Hypothesis H: HR cost per employee has a significant relationship with firms' financial performance.

For ease of research, we break it down further into three different hypotheses

H1: HR cost per employee has a significant relationship with Profit Margin of a firm.

H2: HR cost per employee has a significant relationship with ROA of a firm.

H3: HR cost per employee has a significant relationship with ROE of a firm.

Dependent variable

Dependent variables for this study is profit margin, ROA, ROE. Similar to the work of Clarke & Whiting (2011), we calculated Profit Margin by dividing the net profit after tax with total operating income. For ROA, we calculated this by dividing net profit after tax by average asset. Similarly, we calculated ROE by dividing net profit after tax by average shareholders' equity. Chan (2009) and Firer & Mitchell (2003) also used ROA, ROE, and Profit Margin as an indicator of firm financial performance for their research.

Independent variable

Independent variable for this research is HR cost which is HR expense or HR cost per employee. We calculated total HR cost by adding HR expense of a firm which includes Basic Salary, Allowance, Bonus, Gratuity, Provident fund, benefit with the training expense of an organization. We converted this cost per employee by dividing the total cost by the number of employees of the organization.

Control Factor

Control Factor for the research was included to increase the credibility of the outcome of regression analysis. As Huselid (1995), we added the following control factors:

- Size of the firm: Total employment
- Total Asset
- Revenue Growth
- Capital Intensity: Log of (Property, Plant and Equipment divided by the number of employees)

4. DATA ANALYSIS AND FINDINGS

For our analysis, we used five years of data from all the 30 banks listed under the Dhaka Stock Exchange in Bangladesh. Table 1 and Table 2 present some descriptive statistics. In Table 1, the means and standard deviations of all the measures are given. HR cost per employee has a mean of 0.9, which means that the mean investment in HR in our sample is BDT 0.9 million per employee per year. The

mean ROA is 0.86%, ROE is 11.7% and Profit Margin is 12.10%. Table 2 presents the correlations between the financial measures and HR cost per employee along with the control variables. It can be seen that all three financial measures, ROA, ROE, and Profit Margin, are positively and significantly related to HR cost per employee. For ROA $r = 0.324$, $p < 0.01$, for Profit Margin $r = 0.246$, $p < 0.01$, and for ROE $r = 0.193$, $p < 0.05$.

Table 1**Descriptive Statistics**

	Mean	Std. Deviation	N
ROA	.86	.698	150
ProfitMargin	12.10	50.085	150
ROE	11.70	4.729	150
Revenuegrowth	9.50	16.950	150
Firmsize	3245.5800	2488.61591	150
Capitalintensity	.0844	.30522	150
Hrcost	.8978	.29574	150
TotalAsset	224408.2000	121048.18446	150

Table 2

Correlations						
		Revenue-growth	Firmsize	Capitalintensity	Hrcost	TotalAsset
ROA	Pearson Correlation	.457**	0.07	.351**	.320**	0.13
	Sig. (2-tailed)	0.00	0.39	0.00	0.00	0.12
	N	150	150	150	150	150
ProfitMargin	Pearson Correlation	.443**	0.12	.417**	.246**	.220**
	Sig. (2-tailed)	0.00	0.14	0.00	0.00	0.01
	N	150	150	150	150	150

ROE	Pearson Correlation	.364**	-0.09	-0.05	.193*	-0.12
	Sig. (2-tailed)	0.00	0.30	0.54	0.02	0.16
	N	150	150	150	150	150
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

To test our hypothesis we ran linear regression of panel data in SPSS. We used three models to test our three hypotheses. In the first model, Profit Margin was used as a dependent variable, and HR cost per employee along with the control variables (revenue growth, firm size, capital intensity, and total asset) was used as independent variables. In Model 2 dependent variable was changed to ROA, and in model 3, the dependent variable was changed to ROE. These models were run in two stages. In the first stage, we used the data of all thirty banks to analyze the relationship between dependent and independent variables. In the second stage, we eliminated the government-owned banks to observe the results only in privately owned banks.

Stage 1

Five years of data of all 30 banks were used in stage 1, which gave a total of 150 observations. Table 3 and Table 4 present the regression analysis summary for the three models in stage 1.

Model 1 is used to test hypothesis H1, which states that HR cost per employee has a significant relationship with the Profit Margin of a firm. The regression model has a R square of 0.371 and is statistically significant ($F = 17.022$, $p < 0.01$). This means that 37.1 % of the variance in profit margin is explained by the model's input. HR cost per employee has a positive coefficient ($\beta = 33.749$) and is statistically significant ($p < 0.05$).

Model 2 is used to test hypothesis H2, which states that HR cost per employee has a significant relationship with ROA of a firm. The regression model has a R square of 0.399 and also is statistically significant ($F = 19.158$, $p < 0.01$). This means that 39.9 % of the variance in ROA is explained by the model's input. HR cost per employee has a positive coefficient ($\beta = 0.948$) and is statistically significant ($p < 0.01$).

Model 3 is used to test hypothesis H3, which states that HR cost per employee has a significant relationship with ROE of a firm. The regression model has a R square of 0.251 with $F = 19.158$, $p < 0.01$. Although statistically significant, the model portrays a weaker relationship between the dependent and independent variable

compared to the other two dependent variables. In this model, only 25.1 % of the variance ROE is explained by the model's input. HR cost per employee has a positive coefficient (beta = 6.427) and is statistically significant ($p < 0.01$).

Table 3

Model Summary					ANOVA	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.609 ^a	0.371	0.35	40.39	17.02	0.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ProfitMargin _a						
2	.632 ^a	0.399	0.379	0.55	19.16	0.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ROA _a						
3	.501 ^a	0.251	0.225	4.162	9.67	0.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ROE _a						

Table 4

Model Summary	Coefficients ^a				
Model	Unstandardized Coefficients		Standardized Coefficients		
1	B	Std. Error	Beta	t	Sig.
(Constant)	-38.634	14.389		-2.685	0.008
Hrcost	33.749	15.175	0.199	2.224	0.028
Revenue-growth	1.147	0.198	0.388	5.787	0.000
Firmsize	0.009	0.003	0.431	2.739	0.007

Capitalinten- sity	60.660	13.199	0.370	4.596	0.000
TotalAsset	0.000	0.000	-0.256	-1.691	0.093
a. Dependent Variable: ProfitMargin					
2					
(Constant)	-0.123	0.196		-0.630	0.530
Hrcost	0.948	0.207	0.402	4.589	0.000
Revenue- growth	0.017	0.003	0.423	6.451	0.000
Firmsize	0.000	0.000	0.661	4.293	0.000
Capitalinten- sity	0.648	0.180	0.284	3.607	0.000
TotalAsset	0.000	0.000	-0.531	-3.589	0.000
a. Dependent Variable: ROA					
3					
(Constant)	6.794	1.483		4.582	0.000
Hrcost	6.427	1.564	0.402	4.110	0.000
Revenue- growth	0.111	0.020	0.399	5.443	0.000
Firmsize	0.001	0.000	0.410	2.384	0.018
Capitalinten- sity	-2.432	1.360	-0.157	-1.788	0.076
TotalAsset	0.000	0.000	-0.484	-2.927	0.004
a. Dependent Variable: ROE					

Stage 2

In stage 2, we only used the privately owned banks listed in the Dhaka stock exchange. Out of the 30 banks, 29 banks are privately owned. So we eliminated the data of one government-owned bank from our data pool. A total of 145 observations were used for our study in this stage. Linear regression was run on the panel data of 29 banks in SPSS. Table 5 and Table 6 present the regression analysis summary for the three models in stage 2.

In Model 1, R square has increased to 0.428 with $F = 20.807$ ($p < 0.01$) indicating that in private banks, the variance in Profit Margin is better explained by the input variables. However, in this stage, the HR cost per employee has become insig-

nificant in this model ($p > 0.05$). Therefore, although the model has become more statistically significant, the association between HR cost per employee and Profit Margin has become insignificant.

In Model 2 R square has increased to 0.495 with $F = 27.273$ ($p < 0.01$). The variance in ROA of private banks is also better explained by the input variables. Here the HR cost per employee remains statistically significant ($\beta = 0.68$, $p < 0.01$). Therefore, it can be said that there is a significant positive association between HR cost per employee and ROA in private banks listed in DSE.

In Model 3 R square has slightly increased to 0.291 with $F = 11.835$ ($p < 0.01$). HR cost per employee has a positive coefficient ($\beta = 4.062$) and is statistically significant ($p < 0.01$). This model still portrays a weaker relationship between the dependent variable and the independent variable.

Table 5: Model Summary

					ANOVA	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.654 ^a	0.428	0.407	39.151	20.807	.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ProfitMargin _a						
2	.704 ^a	0.495	0.477	0.500	27.273	.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ROA _a						
3	.539 ^a	0.291	0.265	3.589	11.385	.000
a. Predictors: (Constant), TotalAsset, Hrcost, Revenuegrowth, Capitalintensity, Firmsize						
Dependent Variable: ROE _a						

Table 6

Coefficients						
Model	Unstandardized Coefficients		Standard-ized Coef-ficients	t	Sig.	Correla-tions
	B	Std. Error	Beta			Zero-order
1						
(Constant)	-33.070	14.589		-2.267	0.025	
Hrcost	23.493	15.406	0.134	1.525	0.130	0.248
Revenuegrowth	1.431	0.213	0.436	6.722	0.000	0.493
Firmsize	0.008	0.003	0.408	2.684	0.008	0.131
Capitalinten-sity	67.916	13.594	0.408	4.996	0.000	0.433
TotalAsset	0.000	0.000	-0.220	-1.501	0.136	0.229
Dependent Variable: ProfitMargin _a						
2						
(Constant)	0.063	0.186		0.338	0.736	
Hrcost	0.680	0.197	0.285	3.456	0.001	0.291
Revenuegrowth	0.022	0.003	0.488	8.010	0.000	0.537
Firmsize	0.000	0.000	0.672	4.707	0.000	0.113
Capitalinten-sity	0.876	0.174	0.387	5.046	0.000	0.408
TotalAsset	0.000	0.000	-0.514	-3.729	0.000	0.162
Dependent Variable: ROA _a						
3						
(Constant)	8.625	1.338		6.448	0.000	
Hrcost	4.062	1.412	0.281	2.876	0.005	0.122
Revenuegrowth	0.130	0.020	0.480	6.647	0.000	0.470
Firmsize	0.001	0.000	0.498	2.946	0.004	-0.010
Capitalinten-sity	-0.119	1.246	-0.009	-0.095	0.924	0.035
TotalAsset	0.000	0.000	-0.533	-3.266	0.001	-0.067
Dependent Variable: ROE _a						

5. DISCUSSION

With growing importance in Human Resource Accounting, the purpose of this study was to examine the effect of Human Resource Investment on firms' financial performance. The focus of this study was on the banking industry in Bangladesh, specifically the publicly listed ones, where we wanted to see whether investing more in Human Capital provides a higher accounting returns. For a sample of 30 listed banks in Bangladesh, our result in general support the argument that banks with higher investment in Human Resources experience higher financial return. However, depending on the performance measure, some measures portrays a stronger association, whereas others could not establish a significant one.

Return on Asset (ROA), seemed to be the better predictors of Human Resource Investment than other two measures. Both correlation and regression analysis suggested that return on asset has a statistically significant positive relationship with HR cost per employee. The results from stage 1 analysis, where all 30 banks were considered, showed that 37.9 % of the variance in ROA was explained by HR cost per employee along with the control variables suggesting that an increase in investment in human capital would very likely contribute to an increase in ROA. This finding supports past research which says that when an employer considers employees as value creating source and invest more in human capital, employees become more motivated and contribute more towards the company and help increase Company's financial performance. (Takeuchi, Lepak, Wang, & Takeuchi, 2007; Huselid, 1995). The association was more established in stage 2 when only private banks in the sample were used for analysis. There was only one government-owned bank listed in Dhaka stock exchange, removing the data of which resulted into obtaining a much better result; R square increased to 0.495 with $F = 27.273$ ($p < 0.01$), indicating that the effect of human resource investment on ROA is more significant in private banks.

Profit Margin also showed a positive association with HR cost per employee in stage 1 with R square of 0.371 and $F = 17.022$ ($p < 0.01$). However, in stage 2, the significance of the association could not be established. For ROE, the analysis suggested a weaker relationship between the dependent and independent variable compared to the other two dependent variables. However, the beta of HR cost per employee was positive and statistically significant.

6. CONCLUSION AND FUTURE RESEARCH

Human Resource Investment is being increasingly acknowledged as a significant strategic asset which the firms can utilize as an important competitive advantage for

improving their financial performance. Our study also provides empirical evidence that with firms' increased investment on human resources, superior financial results can be achieved which challenges the traditional management approaches to consider employees as problems or costs. Therefore, this study holds several managerial implications emphasizing critically on the fact that money spent on people in the form of their salary, other benefits, and training should be viewed as significant investments rather than mere operational cost of doing business. Paying competitive salary can boost employee morale and help in employee retention. In addition, increasing investment on training can help employees to acquire new skills and gain knowledge. However, as this study was focused solely on accounting perspective, there is scope for future research to accommodate economic measure and behavioral aspect as well. Considering those aspects could have yielded more in-depth results. Likewise, this relationship can also be explored in different companies in different industries.

REFERENCES

- Absar, M. M. N., Azim, M. T., Balasundaram, N., & Akhter, S. (2010). Impact of human resources practices on job satisfaction: Evidence from manufacturing firms in Bangladesh. *Economic Sciences Series*, 62(2), 31-42.
- Absar, M. M. N., Amran, A., & Nejadi, M. (2014). Human capital reporting: evidences from the banking sector of Bangladesh. *International Journal of Learning and Intellectual Capital*, 11(3), 244-258.
- Bartel, A. P. (1994). Productivity gains from the implementation of employee training programs. *Industrial relations: a journal of economy and society*, 33(4), 411-425.
- Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. *Academy of management journal*, 39(4), 779-801.
- Beer, M., Spector, B. A., Lawrence, P. R., Mills, D. Q., & Walton, R. E. (1984). *Managing human assets*. Simon and Schuster.
- Berk, A., & Kaše, R. (2010). Establishing the value of flexibility created by training: Applying real options methodology to a single HR practice. *Organization Science*, 21(3), 765-780.
- Bernhardt, K. L., Donthu, N., & Kennett, P. A. (2000). A longitudinal analysis of satisfaction and profitability. *Journal of business research*, 47(2), 161-171.
- Cavanaugh, M. A., & Noe, R. A. (1999). Antecedents and consequences of relational components of the new psychological contract. *Journal of Organizational*

Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 20(3), 323-340.

- Chowhan, J. (2016). Unpacking the black box: understanding the relationship between strategy, HRM practices, innovation and organizational performance. *Human Resource Management Journal*, 26(2), 112-133.
- Chua, S. C., Lim, Y. W., Ter, T. T., & Chew, S. B. (2014). Efficiency wage theory: Evidence for Singapore manufacturing sector. *The Singapore Economic Review*, 59(03), 1450021.
- Clarke, M., Seng, D., & Whiting, R. H. (2011). Intellectual capital and firm performance in Australia. *Journal of Intellectual Capital*, 12(4), 505-530.
- Colakoglu, S., Allen, M., Miah, K., & Bird, A. (2016). High-investment HR values and firm performance among local firms and US MNCs' subsidiaries in South Asia: a comparative study. *The International Journal of Human Resource Management*, 27(13), 1426-1447.
- Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel psychology*, 59(3), 501-528.
- De Meuse, K. P., Vanderheiden, P. A., & Bergmann, T. J. (1994). Announced layoffs: Their effect on corporate financial performance. *Human Resource Management*, 33(4), 509-530.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of management Journal*, 39(4), 802-835.
- Firer, S., & Mitchell Williams, S. (2003). Intellectual capital and traditional measures of corporate performance. *Journal of intellectual capital*, 4(3), 348-360.
- Fitz-Enz, J. (1997). The truth about best practices: What they are and how to apply them. *Human Resource Management (1986-1998)*, 36(1), 97.
- Fitz-Enz, J. (2010). *THE NEW HR ANALYTIC Predicting the Economic Value of Your Company's Human Capital Investments*.
- Flamholtz, E.G. and Main, E.D. (1999). 'Current issues, recent advancements and future directions in human resource accounting'. *Journal of Human Resource Costing and Accounting*, 4: 1, 11-20.
- Flamholtz, E. G. (2012). *Human resource accounting: Advances in concepts, methods and applications*. Springer Science & Business Media.
- Flamholtz, E., & Lacey, J. M. (1981). *Personnel management, human capital*

- theory, and human resource accounting* (No. 27).University of California Inst of.
- Flamholtz, E. G., Bullen, M. L., & Hua, W. (2002). Human resource accounting: a historical perspective and future implications. *Management decision*, 40(10), 947-954.
- Gursoy, D., & Swanger, N. (2007). Performance-enhancing internal strategic factors and competencies: impacts on financial success. *International Journal of Hospitality Management*, 26(1), 213-227.
- Hang Chan, K. (2009). Impact of intellectual capital on organisational performance: An empirical study of companies in the Hang Seng Index (Part 1). *The Learning Organization*, 16(1), 4-21.
- Herzberg, F. (1971). The motivation-hygiene theory. *Work and the nature of man*. New York: Crowell.
- Hirsch, B. T. (1991). *Labor unions and the economic performance of firms*. Kalamazoo, MI. W.E. Upjohn Institute of Employment Research.
- Hirschey, M., & Wichern, D. W. (1984). Accounting and market-value measures of profitability: Consistency, determinants, and uses. *Journal of Business & Economic Statistics*, 2(4), 375-383.
- Hopkins, W. E., & Hopkins, S. A. (1997). Strategic planning–financial performance relationships in banks: a causal examination. *Strategic management journal*, 18(8), 635-652.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of management journal*, 38(3), 635-672.
- Kalleberg, A. L., & Moody, J. W. (1994). Human resource management and organizational performance. *American Behavioral Scientist*, 37(7), 948-962.
- Katz, L. F. (1986). Efficiency wage theories: A partial evaluation. *NBER macroeconomics annual*, 1, 235-276.
- Kluytmans, F., & Ott, M. (1999). Management of employability in the Netherlands. *European journal of work and organizational psychology*, 8(2), 261-272.
- Knoke, D., & Kalleberg, A. L. (1994). Job training in US organizations. *American sociological review*, 59(4), 537.

- Koys, D. J. (2003). How the achievement of human-resources goals drives restaurant performance. *Cornell Hotel and Restaurant Administration Quarterly*, 44(1), 17-24.
- Kwon, K. (2019). The long-term effect of training and development investment on financial performance in Korean companies. *International Journal of Manpower*.
- Lado, A. A., & Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of management review*, 19(4), 699-727
- Lee, J., & Miller, D. (1999). People matter: Commitment to employees, strategy and performance in Korean firms. *Strategic management journal*, 20(6), 579-593.
- Liu, Y., Combs, J. G., Ketchen Jr, D. J., & Ireland, R. D. (2007). The value of human resource management for organizational performance. *Business horizons*, 50(6), 503-511.
- Majumder, M. T. H. (2012). Human resource management practices and employees' satisfaction towards private banking sector in Bangladesh. *International Review of Management and Marketing*, 2(1), 52-58.
- Mubarik, M. S., Chandran, V. G. R., & Devadason, E. S. (2017). Measuring human capital in small and medium manufacturing enterprises: What matters?. *Social Indicators Research*, 137(2), 605-623.
- McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of management Journal*, 31(4), 854-872.
- Nourayi, M. M., & Daroca, F. P. (2008). CEO compensation, firm performance and operational characteristics. *Managerial Finance*, 34(8), 562-584.
- Richard, O. C., & Johnson, N. B. (2001). Strategic human resource management effectiveness and firm performance. *International Journal of Human Resource Management*, 12(2), 299-310.
- Pfeffer, J. (1997). Pitfalls on the road to measurement: The dangerous liaison of human resources with the ideas of accounting and finance. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 36(3), 357-365.

- Roca-Puig, V., Beltrán-Martín, I., & Segarra-Ciprés, M. (2012). Commitment to employees, labor intensity, and labor productivity in small firms: A non-linear approach. *International Journal of Manpower*, 33(8), 938-954.
- Roca-Puig, V., Bou Llusar, J. C., Beltrán Martín, I., & García Juan, B. (2019). The virtuous circle of human resource investments: A precrisis and postcrisis analysis. *Human Resource Management Journal*, 29(2), 181-198.
- Russell, J. S., Terborg, J. R., & Powers, M. L. (1985). Organizational performance and organizational level training and support. *Personnel psychology*, 38(4), 849-863.
- Schneider, B. (1991). Service Quality and Profits: Can You Have Your Cake and Eat. *People and Strategy*, 14(2), 151.
- Schultz, T. W. (1960). Capital formation by education. *Journal of political economy*, 68(6), 571-583.
- Shrader, C. B., Blackburn, V., & Iles, P. (1997). Journal of Managerial Issues Women In Management And Firm Financial Performance: An Exploratory Study. *Journal of managerial issues*, 9(3), 355.
- Siddiquee, N. A. (2003). Human resource management in Bangladesh Civil Service: constraints and contradictions. *International Journal of Public Administration*, 26(1), 35-60.
- Snell, S. A., & Dean Jr, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management journal*, 35(3), 467-504.
- Takeuchi, R., Lepak, D. P., Wang, H., & Takeuchi, K. (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied psychology*, 92(4), 1069.
- Toulson, P. K., & Dewe, P. (2004). HR accounting as a measurement tool. *Human Resource Management Journal*, 14(2), 75-90.
- Tzabbar, D., Tzafrir, S., & Baruch, Y. (2017). A bridge over troubled water: Replication, integration and extension of the relationship between HRM practices and organizational performance using moderating meta-analysis. *Human Resource Management Review*, 27(1), 134-148.
- Vithana, K., Jayasekera, R., Choudhry, T., & Baruch, Y. (2018, July). HR as cost or investment: the distinction between short-vs. Long-term focus of firm valuation. In *Academy of Management Proceedings* (Vol. 2018, No. 1, p. 12902). Briarcliff Manor, NY 10510: Academy of Management.

AUTHOR BIOGRAPHY

Ms. Rubaiya Nadia Huda is a Lecturer in Department of Accounting and Finance and Coordinator Assessment of School of Business and Economics, in North South University, Bangladesh. She has completed her MBA majoring in Public accounting, Corporate Accounting and Finance from University of Rochester, USA. She completed her BBA from Institute of Business Administration (IBA), University of Dhaka with a major in Finance and minor in HR. Prior to teaching she worked in corporates like KPMG Bangladesh, British American Tobacco Bangladesh, for more than 3 years. During her MBA she also worked in the University as a Teaching Assistant in Financial Accounting and Workshop Leader in Operation and Business Modelling. Her research interest includes the role of accounting information in capital markets, accounting and auditing research, etc.

Ms. Rifat Iqbal has been working as a Lecturer in the Department of Management under School of Business and Economics in North South University, Bangladesh. She has completed Masters of Management from the Australian National University with Merit and Bachelors of Business Administration from North South University, Bangladesh. She has over four years of experience working in various fields of HR and Administration in companies like Chevron, Bangladesh, Australasian Procurement and Construction Council (APCC), Australia, etc. Her research interest includes Strategic Management, Innovation Management and Corporate Human Resource Management Practices.

Mr. Quazi Tafsirul Islam has obtained his Masters in Management & HR from University of Dundee, Scotland, UK with a Distinction and was awarded the 'MSc Management Award' for being the best student of the program. Prior to this, he completed his Bachelors from North South University, Bangladesh. Before joining Academia, he worked for three years in Standard Chartered Bank and Eastern Bank of Bangladesh in Retail and Wholesale Banking division in different capacities. His research interest include HR Innovation, HR Accounting, Employment Practice and Business Strategy.