

# Effectiveness of Manpower Planning Practices in Commercial Banks of Bangladesh

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*Banking sector is the most prominent and stable sector compared to other industrial sectors of Bangladesh. At present there are fifty-nine scheduled banks including forty-eight private commercial banks in Bangladesh operating under the regulation of the central bank of Bangladesh - Bangladesh Bank. There is a paramount importance of manpower planning of these commercial banks for achieving competitive advantage, banks' strategic objectives and keeping this sector stable in the economy. The basic function of manpower planning in a bank is to identify the future needs and availability of human resources along with the skills required to perform bank's activities to achieve their strategic goals. Hence, this paper aims at evaluating the effectiveness of manpower planning practices of the private banks in Bangladesh. This study is based on a survey of 206 employees of different levels of commercial banks of Bangladesh. Both descriptive and inferential statistics were used to analyze the data. Descriptive statistics were used to describe the present manpower planning practices of the commercial banking sector of Bangladesh. Inferential statistics like factor analysis and multiple regression analysis were used to identify the relationships between the manpower planning practices and the factors that are concerned with effectiveness of manpower planning practices of the commercial banks in Bangladesh. Results show that Delphi technique and skill inventory practices and key position auditing techniques are the significant manpower planning techniques of the commercial banks in Bangladesh. Factors like timely planning and audit, evenly distribution of work, addressing job turnover, adequate workload, and comprehensive recruitment plan are also significantly related to the overall effectiveness of manpower planning practices of the commercial banks in Bangladesh. This study suggests that the policymakers of the banks of Bangladesh should give importance on timely planning and audit, evenly distribution of work, addressing job turnover, providing adequate workload, and comprehensive recruitment plan in order to bring effectiveness of manpower planning practices in the commercial banks of Bangladesh. The policymakers also should adopt Delphi technique and skill inventory practices, and key position auditing techniques in order to make manpower planning more effective in the banks.*

**Keywords:** Manpower planning, Delphi Technique, job turnover, comprehensive recruitment plan, key position auditing.

## Background

The economy of any country primarily depends on the stability of the financial sector where bank is the most prominent sub-sector. In Bangladesh, banking industry is an important and stable financial sector compared to other sectors of the country. But the stability of this sector substantially depends on the efficiency of the employees work over there. An effective manpower planning can only make sure the stability of this sector as it identifies the future needs and availability of human resources and their skills requirements. Manpower planning can contribute to the success of the banks by controlling major costs such as, salary, administrative and other costs. To ensure the organizational strategic goal, banks must have clear manpower planning that clearly will foster the internal and external fit. Therefore, there is a paramount importance of manpower planning in the banking industry of Bangladesh for the achievement of goals of the banks and the stability of the economy of the country. Hence, this study aims at measuring the effectiveness of manpower planning practices in the private commercial banks of Bangladesh.

Study shows that the manpower planning specifically focuses on selecting the employee for the organization and not for a specific job. The new emerging model focuses on the fact that the employees who are going to be selected must fit not only with the jobs requirements but also with the organization's overall performance and culture (Bowen et al., 1991). Different key human resource drivers pursuing the accomplishment of strategic organizational goals in this regard are employee motivation, loyalty, commitment, satisfaction, citizenship behavior and productivity. These factors can be affected by reliable, integrated and corresponding set of manpower planning procedures and practices (Ali, Ahmad & Iqbal, 2012). Manpower planning in banks refers to present and future human resource needs in order to attain the bank's objectives. It is also to serve as a connection between HRM and the bank's overall strategic plan.

sources that are fundamentally needed to satisfy manpower demand. Manpower planning techniques include employee retention strategies, absence management, flexibility, talent management, recruitment, and selection strategies. Ngui (2014) identified that there is a significant positive relationship between strategic manpower planning and employee performance in the commercial banks of Kenya. Bulla and Scott (1994) defined manpower planning as, 'the method to ensure that an organization's manpower needs are identified and plans are developed to meet those needs. Reilly (2003) defined workforce planning as "a method in which an organization tries to estimate employee demand and determine the size, nature and supply sources needed to satisfy demand. Human resource planning is aimed at ensuring that the organization has the number of people with the necessary skills to satisfy the requirements for forecasting". The key manpower planning activities are (i) scenario planning, demand forecasting, (ii) supply forecasting, and (iii) action planning. Farnham (2006) stated that the manpower planning is a vital HR function because it allows employers to create clear and specific connections between their organization and human resource plans and to combine the two more efficiently. It enables better control over employing expenses and employed numbers, and enables employers to take more informed decisions about the combination of abilities and attitudes in the organizations.

Dwivedi (2012) said that manpower planning is a process that helps to perform important HR functions properly, such as, providing true and timely information about employee recruitment. This timely process saves additional business costs. Scholars defined manpower planning in a variety of ways. Manpower planning is a composite of activities that ensure the availability of an adequate number of staff and the caliber required by an organization for present and future requirements (Maduabum, 1998). According to Walker (1980), it is a process to analyze the human resource needs of an organization under changing conditions and to develop the activities needed to meet these needs. Manpower planning represents a critical analysis of human resource supply, demand, surplus, shortages and the use (Ogunniyi's, 1992). Samwel (2018) defined that manpower planning is one of the organization's most important human resource practices. Organizations rely heavily on the planning of manpower to determine their current position and future manpower needs. Study also examined the organization's importance of human resource planning by reviewing various human resources planning literature. The study reviewed literature on human resource planning and focused on HR planning objectives, the human resource planning process and the organization's importance to human resource planning. The findings of this study show that there is a significant relationship between human resource planning and organizational manpower requirements and

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Reilly (2003) claimed that manpower planning practices allow a bank to assess employee demand and determine the size, nature, and supply

organizational performance. In this regard, organizational culture works as a mediating variable in the relationship between manpower planning and organization's performance (Pamela, Umoh, & Worlu, 2017).

Study also identified the reasons for the success of manpower planning in an organization that depends primarily on the organization's willingness to develop such plans that will attract people to work in an environment that increases employers' and employee's peace, tranquility, progress, growth and development. Any organization can develop and implement a sound HR planning if it is based on the quality, quantity and spirit of harmony among the employees they hire. Prashanthi (2013) mentioned that HRM resourcing strategy consists of resourcing plan, scenario planning, demand forecasting and supply forecasting. Organizations use different types of manpower planning methods such as, (i) training and development, (ii) succession planning, (iii) recruitment and selection, (iv) career management, (v) management development, (vi) workforce analysis, (vii) employee leasing, etc. These methods have positive influence on employee performance and lead to greater organizational performance. It is apparent that manpower planning and organizational performance are not directly related, but manpower planning moderates the relationship between HR strategy and organizational performance. Manpower planning is a precursor to an organizational strategy because it responds to the needs of an organizational strategy when a human resource strategy is developed from effective manpower plans (Jemedze, 2018). Leap and Crino (1993) argued that human resources should collect data and information before embarking on manpower planning, which is used to analyze and evaluate the environment's internal and external scanning before making detailed projections. Leap and Crino have developed five stages of the manpower planning process, namely: (i) forecasting human resource needs, (ii) assessing human resource supply, (iii) supply and demand reconciliation, (iv) action plans, (v) assessment of the HRP process. Manpower planning deserves all bankers' respect because this is an industry that rightly values its job security tradition. Banks need to keep pace with that change and competition in a world of strong competition and rapid change but still provide safe and continuous employment. Only the most meticulous and continuously sustained workforce planning can do this (Details are shown in Table 1).

Based on literature review, a conceptual framework has been developed for the Effectiveness of Manpower Planning Practices in commercial Banking Sector of Bangladesh (Figure 1). It shows that the effectiveness of manpower practices depends on a number of factors such as, audits of key positions, preparing manning table, regular expert estimates, trend projection, skills inventory practices, regular job analysis, modeling and multiple predictive techniques, and use of Delphi technique.

### Objectives of the Study

The broad objective of this study is to measure the effectiveness of manpower planning in private commercial banks of Bangladesh. The specific objectives are:

- i. To identify the factors related to effectiveness of manpower planning practices of the commercial banks in Bangladesh;
- ii. To identify the significant factors that are related to the effectiveness of manpower planning practices of private commercial banks in Bangladesh;
- iii. To provide suggestions to the HR managers in order to improve the present manpower planning practices in this sector of Bangladesh.

### Research Methods

This section describes the respondents' profiles and procedures, questionnaire design and test of reliability, determination of sample size, data collection, analytical tools and test of reliability, etc. In

<sup>1</sup>[https://www.google.com/search?q=total+number+of+commercial+banks+bangladesh&source=lnms&sa=X&ved=0ahUKEwigqqO2oJ\\_iAhUP5o8KHVMPADcQ\\_AUICSgA&b22iw=1366&bih=657&dpr=1](https://www.google.com/search?q=total+number+of+commercial+banks+bangladesh&source=lnms&sa=X&ved=0ahUKEwigqqO2oJ_iAhUP5o8KHVMPADcQ_AUICSgA&b22iw=1366&bih=657&dpr=1)

Bangladesh, there are total 54 commercial banks found in of which nine foreign banks are currently operating beside of beside forty five local commercial banks<sup>1</sup>. This study surveyed 206 employees of different departments of commercial banks of Bangladesh. Among them, 12 respondents were HR managers, 84 Branch Managers, and 110 Branch second managers of the banks under study.

There are 32 commercial banks in Bangladesh namely<sup>2</sup>, (i) Bangladesh Commerce Bank Limited (ii) Bank Asia Limited (iii) BRAC Bank Limited (iv) City Bank Limited (v) Community Bank Bangladesh Limited (vi) Dhaka Bank Limited (vii) Dutch-Bangla Bank Limited (viii) Eastern Bank Limited (ix) IFIC Bank Limited (x) Jamuna Bank Limited (xi) Meghna Bank Limited (xii) Mercantile Bank Limited (xiii) Midland Bank Limited (xiv) Modhumoti Bank Limited (xv) Mutual Trust Bank Limited (xvi) National Bank Limited (xvii) National Credit & Commerce Bank Limited (xviii) NRB Bank Limited (xix) NRB Commercial Bank Ltd (xx) NRB Global Bank Limited (xxi) One Bank Limited (xxii) Padma Bank Limited (xxiii) Premier Bank Limited (xxiv) Prime Bank Limited (xxv) Pubali Bank Limited (xxvi) Shimanto Bank Ltd (xxvii) South Bangla Agriculture and Commerce Bank Limited (xxviii) Standard Bank Limited (xxix) Trust Bank Limited (xxx) United Commercial Bank Ltd (xxxi) Uttara Bank Limited and (xxxii) Southeast Bank Ltd. Out of these 32 banks, the survey has covered 12 private commercial banks of Bangladesh. The sample banks are Dhaka Bank Limited, AB bank Limited, NCC Bank Limited, Brac Bank Limited, Mercantile Bank Limited, Prime Bank Limited, Dutch Bangla Bank Limited, ICB Islami Bank Limited, City Bank Limited, Eastern Bank Limited, Bank Asia Limited, and IFIC Bank Limited (Table 2).

### Respondents Profiles

Table 3 shows that 61% of the respondents were male and 39% respondents were female employees of the commercial banks. Table 4 shows the position distribution of the sample respondents. It shows that 5.83 percent of the respondents were HR managers, 40.77 percent were branch managers and 53.40 percent were branch second managers. Age distribution of the sample respondents shows that 27% respondents were at the age of 30-35 years followed by 25% at the age of above 40 years, 22% at the age of 25-30 years, 22% at the age of 35-40 years, and 3% at the age of below 25 years (Table 5). Ninety percent of the respondents were married and 10% were unmarried (Table 6). Work experience of the sample respondents shows that 35% respondents have 5-10 years followed by 22% have less than 5 years, 20% have 10-15 years, 14% have 15-20 years, and 9% have more than 20 years (Table 7).

### Questionnaire Design and Test of Reliability

This study surveyed 206 bank officers from the commercial banks were included in this study. A structured questionnaire with 9 items related to manpower planning techniques and 13 items concerning manpower planning effectiveness were used to collect the data. The dependent variables for the manpower planning techniques and for the effectiveness of manpower planning practices were the combination of all variables of each set of data. It is presumed that when the respondents answer the question separately they answer those in a way which is not followed by them when they answer the

<sup>2</sup>

[https://en.wikipedia.org/wiki/List\\_of\\_banks\\_in\\_Bangladesh#Private\\_commercial\\_banks\\_\(PCBs\)](https://en.wikipedia.org/wiki/List_of_banks_in_Bangladesh#Private_commercial_banks_(PCBs))

Table 1. Literature review

	Recruitment	Adequate number of staff	Organizational Objectives	Cost of HRP	Competitive Advantage	Organizational Strategy & Development	Performance Efficiency	Supply-Demand and of Resources	Sustainability	Turnover	Job Security	Organizational Performance	Organizational Culture	Forecasting of Information
Ali,M Ahmad &Iqbal J, (2012)	√	√	√	√	√	√		√		√	√			
Bowen DE, Ledford GE, Nathan BR (1991)	√	√			√				√	√			√	
Dwivedi, R.S. (2012)	√		√		√			√				√		√
Jemedze, T. (2018)		√	√			√		√					√	
Leap T.L and Crino, D. (1993)	√		√		√							√		
Lyons, T. P. (1979)	√		√	√	√			√		√	√		√	
Maduabum, C. P. (1998)	√	√		√	√									√
Ogunniyi, O. (1992)			√					√					√	
O. Samuel, J., PhD. (2018)	√	√			√		√	√			√			
Pamela, A. C. J., Umoh, G. I., &Worlu, G. (2017)	√		√		√	√						√		√
Prashanti K (2013)	√		√		√	√	√	√	√	√		√	√	√
Walker, J. (1980)					√		√						√	√

Figure 1. Conceptual framework of effectiveness of manpower planning practices in the banking sector of Bangladesh

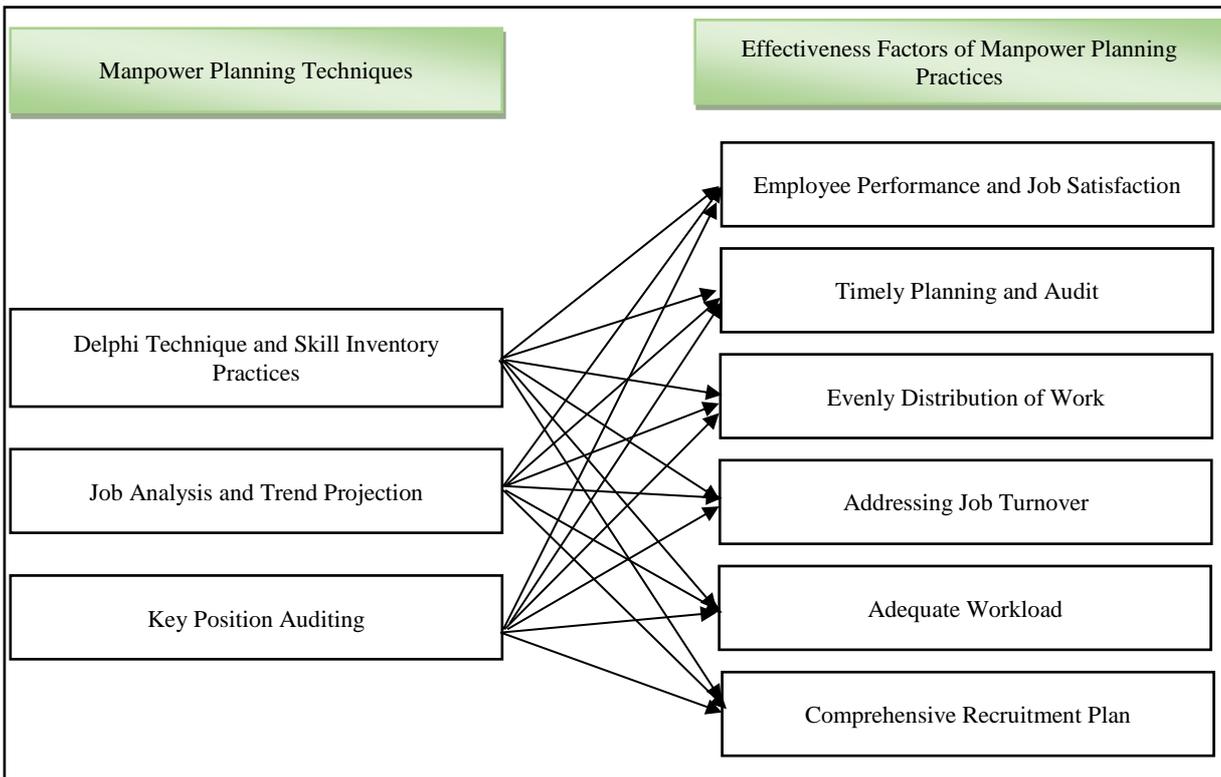


Table 2. Distribution of the banks of sample respondents

Banks Under Study	Number of Respondents	Valid Percent	Cumulative Percent
1. Dhaka Bank Ltd.	20	9.71	9.71
2. AB Bank Limited	18	8.74	18.45
3. NCC Bank Ltd	17	8.25	26.70
4. Brac Bank limited	19	9.22	35.92
5. Mercantile Bank Ltd	22	10.68	46.60
6. Prime Bank Ltd	13	6.31	52.91
7. Dutch Bangla Bank Ltd	15	7.28	60.19
8. ICB Islamic Bank	21	10.19	70.38
9. City Bank Limited	15	7.28	77.66
10. Eastern Bank Limited	13	6.31	83.97
11. Bank Asia Limited	12	5.84	89.81
12. IFIC Bank Limited	21	10.19	100.00
Total	206	100.00	

Table 3. Gender distribution of the respondents

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	125	60.7	60.7	60.7
Female	81	39.3	39.3	100.0
Total	206	100.0	100.0	

Table 4. Position distribution of the respondents

Position	Frequency	Percent	Valid Percent	Cumulative Percent
HR Manager	12	5.83	5.83	5.83
Branch Manager	84	40.77	40.77	46.60
Branch Second Manager	110	53.40	53.40	100.0
Total	206	100.0	100.0	

Table 5. Age distribution of the respondent employees

Age in Years	Frequency	Percent	Valid Percent	Cumulative Percent
Below 25 Years	7	3.4	3.4	3.4
25-30 Years	47	22.8	22.8	26.2
30-35 Years	55	26.7	26.7	52.9
35-40 Years	45	21.8	21.8	74.8
Above 40 Years	52	25.2	25.2	100.0
Total	206	100.0	100.0	

Table 6. Marital status of the respondents

Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Married	186	90.3	90.3	90.3
Unmarried	20	9.7	9.7	100.0
Total	206	100.0	100.0	

Table 7. Working Experience of the Respondents

Experience in Years	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 years	45	21.8	21.8	21.8
5-10 years	73	35.4	35.4	57.3
10-15 years	41	19.9	19.9	77.2
15-20 years	29	14.1	14.1	91.3
More than 20 years	18	8.7	8.7	100.0
Total	206	100.0	100.0	

combined question (all variables together). These research instruments were adapted by integrating the findings of existing literatures related to manpower planning and the latest trends in human resource planning. The data were collected through surveying the employees and managers with the help of a structured questionnaire which was developed through literature review. This structured questionnaire with the 5-points scale was developed for the items related to both manpower planning techniques and effectiveness of manpower planning practices in private commercial banks of Bangladesh where 1 indicates "Strongly disagreed" and 5 indicates "Strongly agreed". The reliability of the manpower planning effectiveness questionnaire is calculated as 0.72 which is acceptable as per Nunnally (1967). The reliability of manpower planning techniques is calculated as 0.668. As this is a new study area of study, below 70 percent is accepted (Table 8).

#### Determination of Sample Size

As of December 2015 there are 56 banks in Bangladesh and the number of bank branches increased to 9397 from 9040 as of December 2014 due mainly to opening of new branches by the banks during the year. At the end of June 2016, the total number of bank branches increased further to 9453<sup>3</sup>. Commercial bank typical ten different departments such as, retail banking, loan servicing, wealth management, investment banking, deposit operations, wire transfer operations, cash management, electronic banking, commercial banking and mortgage banking<sup>4</sup>. To determine the sample size of the respondents by using the formula published by University of Florida

was used as a reference, this study used formula for taking sample data from population suggested by Yamane (1967).

$$n = \frac{N}{(1+Ne^2)}$$

Where, n=Sample Size, N= Population, e=Level of Precision, in calculating number of sample the following assumptions were made to determine, n=204, if Population Size is more than 100000; Level of precision is 7%.

$$n = \frac{100000}{(1+100000*0.07^2)} = 204$$

However, this study finally surveyed 206 HR officers of the banks under study.

#### Data Collection

This is a survey based study among the HR managers and officers of the commercial banks in Bangladesh. The sample respondents were selected by using the convenience sampling method. After collecting 221 data through direct survey, incomplete, biased, and abnormally answered data were discarded through scrutinizing process and finally accepted 206 data which were used in the analysis of this study.

#### Analytical Tools

Both descriptive and inferential statistics were used to analyze the data. Along with descriptive statistics, inferential statistical

Table 8. Reliability statistics of manpower planning techniques &amp; effectiveness of manpower planning practices

<sup>3</sup><https://www.bb.org.bd/pub/annual/anreport/ar1516/chap5.pdf>

<sup>4</sup><https://www.google.com/search?ei=AQbdXK2bGdDdz7sP992OuAI&q=departments+of+a+commercial+bank&oq=departments+of+a>

+commercial+bank&gs\_l=psy-ab.3..0j0i22i30l3.89365.96478..96684..0.0..0.133.1479.0j12.....0....1..gws-wiz.....0i71j33i10.mZ8aGuNxR78

Variables	Cronbach's Alpha	N of Items
Manpower Planning Practices Effectiveness Variables	.721	13
Manpower Planning Techniques Variables	.668	8

techniques such as, Factor Analysis and Multiple Regression Analysis were used to analyze the data. A Principal Component Analysis (PCA) with an Orthogonal Rotation (Varimax)<sup>5</sup> using the SPSS (Statistical Package for Social Sciences) was performed on the survey data. Multiple Regression Analysis<sup>6</sup> was run to identify the relationships between the dependent and independent variables of both the model. Inferential statistics like Factor Analysis (FA) was used to identify the factors related to the effectiveness of the manpower planning practices and the manpower planning techniques of the banks. Multiple Regression Analysis (MRA) was used to identify the significant factors from the factors identified through factor analysis. The relationships between dependent and independent variables were also identified through multiple regression analysis.

### Analysis and Interpretations

In the analysis part, multivariate analysis like factor analysis and multiple regression analysis were performed. This study covered two important aspects of manpower planning such as, manpower planning techniques and the manpower effectiveness related factors. **Manpower Planning Techniques**

The results of factor analysis show that all the variables concerning the manpower planning techniques of the commercial banks in Bangladesh have high communalities indicating the variables are important in this study (Table 9).

Table 11 shows the factor loadings of the variables constituted three manpower planning techniques factors are very high. It shows that the factor loadings of all the variables are high indicating that the variables constituted the factor(s) have higher level of relationships with them.

Analysis of Variance (ANOVA) shows that the factors together are significant as manpower planning techniques (Sig. F <0.01) (Table 13).

This study identified three manpower planning techniques such as, Delphi technique and skill inventory practices, key position auditing and job analysis and trend projection. Individual factor relationships show that the factor such as, Delphi technique and skill inventory practices, and key position auditing are significant and job analysis and trend projection is not significant (Table 14). This means that in private commercial banks of Bangladesh use Delphi technique and skill inventory practices, and key position auditing in their manpower

planning. However, there is no importance of job analysis and trend projection for making manpower planning in commercial banks of Bangladesh.

### Effectiveness of Manpower Planning Practices

This study used 13 variables related to the effectiveness of manpower planning practices of private commercial banks in Bangladesh. The communalities of the effectiveness of manpower planning practices variables have higher level of relationships with the data set (Table 15).

Factor analysis identified six factors concerning the effectiveness of manpower planning practices in private commercial banks of Bangladesh such as, (i) employee performance and job satisfaction, (ii)

<sup>5</sup>Varimax rotation is an orthogonal rotation of the factor axes to maximize the variance of the squared loadings of a factor (column) on all the variables (rows) in a factor matrix, which has the effect of differentiating the original variables by extracted factor. Each factor will tend to have either large or small loadings of any particular variable. A varimax solution yields results which make it as easy as possible to identify each variable with a single factor. This is the most common rotation option.

timely planning and audit, (iii) evenly distribution of work, (iv) addressing job turnover, (v) adequate workload, and (vi) comprehensive recruitment plan (Table 16). As it is a new study, this study used 0.90 Eigenvalue for running factor analysis.

The factor loadings of the variables constituted six factors relating to the effectiveness of manpower planning practices are very high indicating that the variables constituted the factor(s) have higher level of correlations with the factors (Table 17).

The model summary of the analysis shows that the R square value is 0.239 indicating that the model is somewhat acceptable. This study identified 24 percent of the effectiveness factors of manpower planning practices. The other factors concerning the effectiveness of manpower planning practices might be related to the sociopolitical and compliance issues (Table 18). It signifies that employee performance and job satisfaction, timely planning and audit, evenly distribution of work, addressing job turnover, adequate workload, and comprehensive recruitment plan factors have 21.9 percent influence on the overall effectiveness of manpower planning practices of the private commercial banks in Bangladesh. This study covered only 23.9 percent of the factors concerned with the effectiveness of the manpower planning practices of the commercial banks in Bangladesh. The other factors, perhaps, might be concerned with the regulatory body and or traditional practices of the banks.

ANOVA shows that the factors related to the effectiveness of the manpower planning practices are significantly related to the overall effectiveness of the manpower planning of the private commercial banks in Bangladesh (Table 19).

Individual factor relationships show that the factor named employee performance and job satisfaction is not significantly related to the overall effectiveness of manpower planning practices of private commercial banks in Bangladesh. Other five factors namely, timely planning and audit, evenly distribution of work, addressing job turnover, adequate workload, and comprehensive recruitment plan are significantly related to the overall effectiveness of manpower planning practices of the private commercial banks in Bangladesh (Table 20).

### Conclusions and Recommendations

This study identified three factors related to the manpower planning techniques of the private commercial banks in Bangladesh such as, Delphi technique and skill inventory practices, job analysis and trend projection, and key position auditing. Factors like Delphi technique and skill inventory practices and key position auditing are significant as manpower planning techniques. Factor analysis also identified six factors of the effectiveness of manpower planning practices such as, employee performance and job satisfaction, timely planning and audit, evenly distribution of work, addressing job turnover, adequate workload, and comprehensive recruitment plan. Effectiveness of manpower planning factors like timely planning and audit, evenly distribution of work, addressing job turnover, adequate workload, and comprehensive recruitment plan are significantly related to the overall effectiveness of manpower planning practices of the private commercial banks in Bangladesh. Individual factor relationships show that the factor namely, employee performance and job satisfaction is

<sup>6</sup>In statistics, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'Criterion Variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.

not significantly related to the overall effectiveness of manpower planning practices of the private commercial banks in Bangladesh. This study suggests that the policymakers of the private commercial banks of Bangladesh should give importance on timely planning and audit, evenly distribution of work, job turnover, adequate workload, and comprehensive recruitment plan in order to bring effectiveness of manpower planning practices of the banks. The banks can also use Delphi technique and skill inventory practices and key position

auditing as techniques for making effective manpower planning. However, the findings of this study might be more accurate by conducting further study on the private commercial banks in Bangladesh in future by taking more managers and employees into consideration. Study also can be conducted on the government commercial banks on the same topic to have a comprehensive idea on the banking sector of Bangladesh in this regard.

Table 9. Communalities of the manpower planning techniques variables

Variables	Extraction
1. Audits of key positions are regularly conducted in my bank	.817
2. Manning Table is prepared here in my bank for manpower planning	.446
3. Expert estimates are regularly done in this bank for manpower planning	.438
4. Trend projection is a regular practice of this bank used in manpower planning	.660
5. We have 'Skills Inventory' practices of the employees	.534
6. Job analysis is regularly done to identify the manpower needs	.616
7. Modeling and Multiple Predictive Techniques are used to identify the manpower needs	.455
8. Delphi Technique is used to identify the manpower needs of this bank	.723

Extraction Method: Principal Component Analysis.

This study identified three factors related to the manpower planning techniques of the commercial banks of Bangladesh. This three together explained 58.44% of the variance of the data set. The factors are (i) Delphi Technique and Skill Inventory Practices, (ii) Job Analysis and Trend Projection, and (iii) Key Position Auditing (Table 10).

Table 10. Total variance explained

Factors	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1. Delphi Technique and Skill Inventory Practices	2.368	29.599	29.599
2. Job Analysis and Trend Projection	1.352	16.901	46.500
3. Key Position Auditing	.972	12.145	58.644

Extraction Method: Principal Component Analysis.

Table 11. Rotated component matrix<sup>a</sup>

Variables	1	2	3
8. Delphi Technique is used to identify the manpower needs of this bank	.812		
5. We have 'Skills Inventory' practices of the employees	.729		
2. Manning Table is prepared here in my bank for manpower planning	.658		
7. Modeling and Multiple Predictive Techniques are used to identify the manpower needs	.624		
6. Job analysis is regularly done to identify the manpower needs		.756	
4. Trend projection is a regular practice of this bank used in manpower planning		.741	
1. Audits of key positions are regularly conducted in my bank			.899
3. Expert estimates are regularly done in this bank for manpower planning			-.521

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Model summary shows that the R square value of this model is 0.241. It indicates that any change in the independent variables will bring about 24.1 percent changes in the dependent variable. (Table 12). This study only covered 24.1 percent of the manpower planning techniques factors. The other techniques/factors might be concerned with the established planning practices (or traditions) of the banks and manpower planning culture of other organizations of Bangladesh or business and social norms for using manpower planning techniques of the country.

Table 12. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.491 <sup>a</sup>	0.241	0.231	.76540

Table 13. ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	43.281	3	14.427	24.626	.000 <sup>b</sup>
Residual	136.500	233	.586		
Total	179.781	236			

Table 14. Coefficients<sup>a</sup>

Factors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.928	.050		79.011	.000
<i>Delphi Technique and Skill Inventory Practices</i>	.287	.050	.329	5.769	.000
Job Analysis and Trend Projection	.084	.050	.097	1.692	.092
<i>Key Position Auditing</i>	.306	.050	.351	6.143	.000

Table 15. Communalities of the effectiveness of manpower planning practices variables

Variables	Extraction
1. Work overload here in my bank is not high	.766
2. Proper HR planning is practiced in my bank	.597
3. Timely planning and audit is done here in this bank	.718
4. Adequate pool of employees are available in this bank	.757
5. We practice evenly distribution of work	.835
6. Comprehensive job description for all positions are outlined	.590
7. I think human resource are effectively utilized here in this bank	.643
8. Job turnover is seriously addressed by this bank	.635
9. Leaves and overtime are properly addressed	.762
10. We have comprehensive recruitment plan in this bank	.786
11. Qualifications and experiences are considered for recruitment	.703
12. Proper HR planning affects employee performance	.764
13. Proper HR planning affects job satisfaction	.733

Extraction Method: Principal Component Analysis.

Table 16. Total variance explained

Factors	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1. Employee Performance and Job Satisfaction	3.018	23.216	23.216
2. Timely Planning and Audit	1.882	14.475	37.691
3. Evenly Distribution of Work	1.306	10.049	47.740
4. Addressing Job Turnover	1.167	8.974	56.713
5. Adequate Workload	.997	7.667	64.380
6. Comprehensive Recruitment Plan	.920	7.078	71.458

Extraction Method: Principal Component Analysis.

Table 17. Rotated component matrix<sup>a</sup>

	Factors					
	1	2	3	4	5	6
<i>Factor 1 Employee Performance and Job Satisfaction</i>						
12. Proper HR planning affects employee performance	.837					
13. Proper HR planning affects job satisfaction	.764					
11. Qualifications and experiences are considered for recruitment	.638					
<i>Factor 2 Timely Planning and Audit</i>						
3. Timely planning and audit is done here in this bank		.786				
4. Adequate pool of employees are available in this bank		.750				
2. Proper HR planning is practiced in my bank		.670				
<i>Factor 3 Evenly Distribution of Work</i>						
5. We practice evenly distribution of work			.889			
6. Comprehensive job description for all positions are outlined			.654			
<i>Factor 4 Addressing Job Turnover</i>						
8. Job turnover is seriously addressed by this bank				.753		
7. I think human resource are effectively utilized here in this bank				.736		
<i>Factor 5 Adequate Workload</i>						
1. Work overload here in my bank is not high					.861	
<i>Factor 6 Comprehensive Recruitment Plan</i>						
10. We have comprehensive recruitment plan in this bank						.771
9. Leaves and overtime are properly addressed						.638

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Table 18. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.489 <sup>a</sup>	.239	.219	.77133

Table 19. ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.941	6	7.157	12.029	.000 <sup>b</sup>
Residual	136.839	230	.595		
Total	179.781	236			

Table 20. Coefficients<sup>a</sup>

Factors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.928	.050		78.403	.000
Employee Performance and Job Satisfaction	-.013	.050	-.015	-.263	.793
<i>Timely Planning and Audit</i>	.261	.050	.299	5.202	.000
<i>Evenly Distribution of Work</i>	.250	.050	.286	4.978	.000
<i>Addressing Job Turnover</i>	.120	.050	.137	2.385	.018
<i>Adequate Workload</i>	.161	.050	.185	3.210	.002
<i>Comprehensive Recruitment Plan</i>	.104	.050	.119	2.068	.040

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