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ABSTRACT

The need for skilled manpower in universities is immense to keep pace with the present changing modern world. Organizational factors like job satisfaction and job involvement have been identified as leading factors impacting skilled workforce in various organizations as well as in universities. The purpose of the present study was to explore the relationship between job satisfaction and job involvement of non-academic employees in Chittagong University in terms of job position and gender. The study was conducted on 180 respondents purposively selected from the registar office, different halls, faculties, medical centre and the office of the various departments of the University of Chittagong. The age of the respondents ranged in between 22 and 62 years. The Bangla versions of job satisfaction scale and job involvement scale were used to collect the necessary data. The findings of the present study showed that job satisfaction of the first class non-academic employees of the university was greater than those of the third and fourth class employees (F = 11.69, df = 2/174, p < .001). Consistent with this, job involvement of the first class non-academic employees was found to be greater than the third and fourth class employees (F = 6.81, df = 2/174, p < .001). A significant positive correlation between job satisfaction and job involvement of non-academic employees was also evident (r = .47, p < .01).

Key words: Job satisfaction, job involvement, non-academic university employees

INTRODUCTION

University is a paramount institution for a country. Its gigantic contribution is making productive citizens for our country. This mammoth great work is performed by the university staffs. University staffs are of two types: First, staffs

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directly involved with the academic activities such as the faculty members and second, staffs who actively support the academic staffs to implement the academic and administrative decisions. They are known as the non-academic employees of the university. Non-academic university employees are professionals who contribute very significantly to the success of universities (Nawi et al., 2016). Long-term experiences give them invaluable expertise and lend consistency to the daily operations of the University. We need to value this strength and enable them to be the high performer by arranging various intervention programs addressing various job related factors. Among the various job related factors, the importance of job satisfaction and job involvement for any organization is huge as it is linked to many variables, including productivity, absenteeism, turnover etc. (Ali and Akhter 2009).

Job satisfaction is an attitudinal variable that reflects a person's overall feelings about their jobs and related aspects of them (Spector 2012). In simple terms, job satisfaction is the extent to which people like their jobs. Satisfaction regarding job serves as a source of motivation to work. According to Coomber and Barriball (2007), job satisfaction is the individual feeling that people have with regards to their work and an evaluation of the extent to which their professional needs are fulfilled. Job involvement is often termed as an attachment to one's job. The employee can become so involved with his job that it affects their performance throughout the job areas. It often reflects an employee's enthusiasm and engagements to perform their assigned work where they found themselves with a psychological identification of job (Kanungo 1982).

Khan and Nemati (2011) researched about the impact of job involvement on job satisfaction of 127 employees. They found that job involvement is significantly positively correlated with job satisfaction. Brown and Leigh (1996) investigated about job involvement, job performance and job satisfaction of sales persons. They also found a significant positive correlation among job involvement, job performance and job satisfaction. The employees having the lower degrees of involvement in a job are more likely to experience lower job satisfaction and inclined to leave the organization (Kanungo 1979).

Several studies on gender differences in job satisfaction revealed with mixed findings. Klecker (1997) researched on elementary school teachers' job satisfaction and reported that female employees showed higher levels of job satisfaction than their male counterparts across most work settings. Similarly Amune (2014) studied about the determinants of job satisfaction among male and

female librarians in public university libraries in Edo state of Nigeria and found that female employees showed more job satisfaction than male. On the other hand, Chiu, Man and Thayer (1998) reported that men are more satisfied than women in their work. Job satisfaction of faculty members in private universities in the context of Bangladesh was revealed in a study conducted by Ali and Akhter (2009). They stated that there was no significant difference in job satisfaction between male and female faculty members. Mabekoje (2009) researched on gender differences in job satisfaction among 338 secondary school teachers and found that there was no significant difference between male and female teachers according to job satisfaction. Abosede (2014) conducted a study on gender differences in job satisfaction of 400 academic and non-academic staffs of Olabisi Onabanjo University in Nigeria. The result revealed that there was no significant gender difference in job satisfaction of academic and non academic staffs. Similarly, McCann (2002) found no gender difference in job satisfaction by investigating about job satisfaction among directors of classified personnel in civil service systems of California in America.

Spencer and Byrne (2016) compared the job satisfaction between corporate managers and their subsequent employees. They found that senior level managers had high job satisfaction than junior level managers. Similarly, Sutherland (2013) studied the employment status and job satisfaction in Glasgow, UK by using the secondary data from Economic and Social Research Council (ESRC) in UK and found that job satisfaction varied according to employment status. High status employees had greater job satisfaction than low status employees. Murad, Zayed and Mukul (2013) studied the job satisfaction of bankers in Bangladesh. Through multiple regression model, they found that job position along with pay, working condition, job security, recognition and promotion play statistically significant role in influencing the level of job satisfaction.

Manubhai and Vaghela (2017) investigated about job involvement of female and male government employees in India. They found female employees are more involved in their jobs than male employees. But Aranya, Kushnir and Valency (1986) found the opposite result. They examined the relationship of organizational commitment and job involvement of 1,040 Canadian charter accountants according to gender and found males had more job involvement than females. On the other hand, some studies found no gender difference in case of job involvement. Love and Singer (1988) investigated about job involvement of 178 police officers in New Zealand and found no difference in level of job

involvement between male and female respondents. Similarly, Kundu (2015) did not find gender differences in case of job involvement in his research among male and female bank employees working in private banks in India.

Dienhart and Gregoire (1993) studied on various factors influencing job satisfaction, job involvement, job security and job position of 803 restaurant employees in USA. They found job satisfaction, job involvement and job security did not differ according to job position. Schaufeli *et al.*, (2002) conducted a research on job involvement of 619 employees of Spanish private and public companies. They found that job involvement had been observed to be negatively related to the turnover intention and positively related to organizational commitment. Frone and Rice (1987) studied about job involvement of 141 nonteaching professional employees at a major public university in the northeastern United States. They found that job involvement increases role pressures and cause people to spend more time and attention being spent on the role. Lodahl and Kejner (1965) investigated about the relation between job involvement, and other job related attitudes. They found job involvement as a catalyst to satisfy the individual present needs.

The overall success of educational institutions specifically the universities is largely dependent on both the academic staffs and non-academic employees. Nonacademic employees of a university possess a wealth of institutional knowledge, provide essential resources, and work alongside of faculty and administration in implementing the University's mission. While academic staffs support students academically and in research, non-academic employees make important contributions to both academic staffs and students through many official supports and operational services. At any university, the non-academic employees perform a vital role in ensuring the smooth operations of the institution. In order to maintain the smooth operations of the universities, it is necessary for the staffs to be affiliated to the job related essential services. Job satisfaction and job involvement are essential factors in a work environment. Job satisfaction is an important variable that affects productivity as well as employee performance and motivational levels (Rahman, Fatema, & Ali, 2019). Satisfied and committed staffs are likely to have lower rates of turnover, absenteeism and withdrawal behaviors and perform their roles better (Josias, 2005). Job involvement is another key variable in increasing employees' sense of accomplishment, focus at work, independence and self-pride. Employees with a high level of job involvement have a stronger attachment to their work and occupation, which ultimately

increases the level of job satisfaction. Job satisfaction and job involvement may be affected by a wide range of factors. Among them, gender and job position are important factors to be considered in a study. Most of the researches in our country have been conducted in profit-oriented organizations making it essential to carry out a similar study in educational institutions, universities in particular. Findings of the research may be helpful for the university authorities, researchers, UGC (University Grants Commission), educationists and significant others to better recognize the non-academic employees' intrinsic psychological needs of appreciation and security in work and foster their drive in creative problem-solving, and ability to perform high-quality work reflecting higher job satisfaction and job involvement.

The objective of the present study is to find out whether there is any relation between job satisfaction and job involvement of non-academic university employees according to their gender and job position.

METHODS

Sample

Job position of non-academic employees in Chittagong University comprised of three categories- 1st class (section officer, assistant registar, deputy registar, medical officer and registar), 3rd class (lower division clark / typist cum assistant-grade 2, upper division clark/ typist cum assistant-grade 1) and 4th class (peon, cleaner, lab assistant etc) staffs. In the present study, 180 non-academic employees of Chittagong University were selected using the purposive sampling technique. Among them 90 were male and 90 were female staffs. Each these groups again consisted of 30 first class, 30 third class and 30 fourth class staffs. Their age ranges were found from 22 to 62 years from the collected data.

Measuring Instruments

The following measuring instruments were used to collect data from the respondents.

a. Job Satisfaction Scale

This scale was developed by Brayfield and Rothe (1951) and adapted in Bangla by Khaleque (1976). It consists of 18-items with five responses such as strongly agree, agree, undecided, disagree and strongly disagree. The scale contains 9 positive and 9 negative items. For positive items, score 5 indicates strongly agree, score 4 agree, score 3 undecided, score 2 disagree and score 1 strongly disagree.

On the other hand, for negative items scoring was in reverse order. The sum of scores of all the items is the total score of the scale for an individual. The lowest possible score is 18 and the highest possible score is 90. Higher scores indicate higher job satisfaction. The original version of the scale has high reliability (Cronbach's alpha=0.87). The Bangla version of the scale was found to have a concurrent validity of 0.63. Cronbach alpha was found to be 0.89 that indicates high inter item consistency. The test-retest and split-half reliabilities of the Bangla version of the scale were found significant (r = .85, p < .01 and r = .81, p < .01).

b. Job Involvement Scale

The original Job Involvement Scale was developed by Lodahl and Kejner (1965) and adapted in Bangla by Khaleque (1995). It is a Likert-type scale containing 6 items. It contains 5 (No.1-5 items) positive and 1(No. 6) negative items. The items were rated on a five point response format (strongly agree, agree, undecided, disagree, and strongly disagree). For positive items, score 1 indicates strongly disagree, score 2 disagree, score 3 undecided, score 4 agree, and score 5 strongly agree. For negative item, scoring was in reverse order. The sum of scores of all the items is the total score of the scale for an individual. The lowest possible score is 6 and the height possible score is 30. Higher scores indicate higher job involvement. The test-retest and split-half reliabilities of the Bangla version of job involvement scale was found significant (r = .85, p < .01 and r = .81, p < .01).

Design of the Study

For conducting the present study, the cross-sectional survey design was followed.

Procedure

The present study aimed to collect information about the job satisfaction and job involvement of Chittagong University's non-academic employees. Towards this end, participants were selected purposively from registar building, different hall offices, medical centre and faculty offices of the University of Chittagong. Based on the objective of the present study, data were collected from the respondents after taking their informed consent. The questionnaires were administered to each of the respondents individually and before that a rapport was established through conversation with each of the respondents. The respondents were requested to express their actual feelings and thoughts regarding the items of the Job Satisfaction and Job Involvement Scales. Those who did not understand properly, they were given necessary clarifications. Upon completion of the questionnaires, the respondents were thanked for their sincere co-operation.

RESULTS AND DISCUSSION

Obtained data were analyzed using descriptive statistics, F-test and Pearson Product Moment Correlation.

TABLE 1: DESCRIPTIVE STATISTICS OF JOB SATISFACTION ACCORDING TO GENDER AND JOB POSITION OF NON-ACADEMIC EMPLOYEES

Job position					
Gender	First Class	Third Class	Fourth Class	Total	
Male	M = 68.50 SD = 11.35		M = 68.40 SD = 8.73	M = 65.83 SD = 12.08	
Female	M = 72.15 SD = 6.91	M = 63.00 SD = 9.47	M = 55.47 SD = 10.26	M = 61.89 SD = 11.32	
Total		M = 61.78 SD = 11.61	M = 59.78 SD = 11.49	M = 63.76 SD = 11.86	

The descriptive statistics of job satisfaction data indicated that indicated that job satisfaction score of first class non-academic employees was the highest (69.72±10.18), followed by third class (61.78±11.61) and fourth class (59.78±11.49) non-academic employees. To determine the significant differences in mean scores observed in Table 1, two-way analysis of variance (ANOVA) was computed (Table 2).

TABLE 2: SUMMARY OF THE ANALYSIS OF VARIANCE OF JOB SATISFACTION ACCORDING TO GENDER AND JOB POSITION OF NON-ACADEMIC EMPLOYEES

Source of Variance	SS	df	MS	F	Sig.(p-value)
Gender	216.04	1	216.04	1.94	.165
Job position	2601.93	2	1300.97	11.69	.001
Gender * Job position	2311.51	2	1155.75	10.39	.001
Error	19358.69	174	111.28		
Total	756951.00	180			

Table 2 shows that gender induced no significant effects on job satisfaction of non-academic university employees but job position had significant effects on job

satisfaction (F = 11.69, df = 2/174, p < .001). The results also revealed significant interaction effect between job position and gender (F = 10.39, df = 2/119, p < .001).

TABLE 3: POST HOC TEST (LSD) FOR JOB POSITION OF NON-ACADEMIC EMPLOYEES ON JOB SATISFACTION SCORES

(I) Job Position	(J) Job Position	Mean Difference (I-J)	SE	Sig. Level
First Class	Third Class	7.93*	1.92	.001
	Fourth Class	9.93*	1.92	.001
Third Class	First Class	-7.93*	1.92	.001
	Fourth Class	2.00	1.92	.30
Fourth Class	First Class	-9.93*	1.92	.001
	Third Class	-2.00	1.92	.30

^{*}p<.05

Mean differences as shown in Table 3 through post hoc test (LSD) were significant (p < 0.05) revealing that first class non-academic employees had higher job satisfaction than those of third and fourth class employees.

TABLE 4: DESCRIPTIVE STATISTICS OF JOB INVOLVEMENT ACCORDING TO GENDER AND JOB POSITION OF NON-ACADEMIC EMPLOYEES

Job Position						
Gender	First Class	Third Class	Fourth Class	Total		
Male	M = 21.70 $SD = 5.11$	M = 19.63 SD = 4.11	M = 20.55 $SD = 3.05$	M = 20.76 SD = 4.44		
Female	M = 22.55 $SD = 3.79$	M = 19.60 $SD = 4.90$	M = 17.92 $SD = 4.36$	M = 19.51 SD = 4.74		
Total	M = 21.98 $SD = 4.69$	M = 19.62 $SD = 4.48$	M = 18.80 $SD = 4.14$	M = 20.13 $SD = 4.62$		

Table 4 indicates that mean job involvement score of male non-academic employees was 20.76 (SD = 4.44) and female non-academic employees was 19.51 (SD = 4.74). The results also indicated that job involvement score of first class university's non-academic employees was 21.98 (SD = 4.69), third class was 19.62 (SD = 4.48) and fourth class was 18.80 (SD = 4.14). To determine the

significant differences observed among the means in Table 4, two-way analysis of variance (ANOVA) was computed.

TABLE 5: SUMMARY OF THE ANALYSIS OF VARIANCE OF JOB INVOLVEMENT ACCORDING TO GENDER AND JOB POSITION OF NON-ACADEMIC EMPLOYEES

Source of Variance	SS	df	MS	F	Sig.(<i>p</i> -value)
Gender	15.09	1	15.09	.77	.38
Job position	265.86	2	132.93	6.81	.001
Gender * Job position	87.51	2	43.75	2.24	.11
Error	3395.24	174	19.51		
Total	76788.00	180			

Table 5 shows that gender had no significant effect on job involvement but job position of non-academic employees induced significant effects on job involvement (F = 6.81, df = 2/119, p < .001). No significant interaction effect between job position and gender was evident.

TABLE 6: POST HOC TEST (LSD) FOR JOB POSITION OF NON-ACADEMIC EMPLOYEES ON JOB INVOLVEMENT SCORES

(I) Job Position	(J) Job Position	Mean Difference	SE	Sig. Level
		(I-J)		
First Class	Third Class	2.37*	.81	.01
	Fourth Class	3.18*	.81	.001
Third Class	First Class	-2.37*	.81	.01
	Fourth Class	.82	.81	.31
Fourth Class	First Class	-3.18*	.81	.001
	Third Class	82	.81	.31

^{*}p<.05

Mean differences as shown in Table 6 through post hoc test (LSD) were found to be significant revealing that first class university's non-academic employees had greater job involvement than those of the third and fourth class employees (p < 0.05).

TABLE 7: PEARSON'S CORRELATION BETWEEN JOB SATISFACTION AND JOB INVOLVEMENT OF NON-ACADEMIC UNIVERSITY EMPLOYEES

Job Satisfaction	r	Significant level (α)	
Job Involvement	.47	.01 (two-tailed)	

Table 7 indicates that there is a significant positive correlation between job satisfaction and job involvement of university's non-academic employees (r = .47, p < .01).

The objective of the present study was to find out the relationship between job satisfaction and job involvement of non-academic employees of university as correlates of their gender and job position. Result from significant association between job satisfaction and job involvement observed through the findings indicates that higher the job satisfaction the greater the job involvement among the employees and vice versa. This result is consistent with other previous studies (Brown and Leigh, 1996; Diefendorff, Brown, Kamin, and Lord, 2002) revealing significant positive correlation among job involvement, performance and job satisfaction of different types of staffs. Generally, people who are satisfied with their job may experience less occupational stress. Therefore they feel happy in the organization which increases their organizational commitment and high commitment also increases their job involvement (Suki and Suki 2011). Lower job satisfaction, high degree of job frustration gradually rise to undesirable attitudes which affect their performance, ability and decrease the job involvement (Mowday, Porter, and Steers 2013; Sarker and Rashid, 2015). On the other hand, higher job involvement enhances employee efficiency and performance. Therefore, employees get intrinsic and extrinsic reinforcement which ultimately increases their job satisfaction (Spector 2012).

The objective of the study also focused to investigate whether job satisfaction of university's non-academic employees varies according to their gender and job position. From the findings it was evident that first class non-academic employees had higher job satisfaction than the third and fourth class employees. This finding is supported by the previous researches of Spencer and Byrne (2016), Sutherland (2013) and Murad, Zayed and Mukul (2013). Employee's job satisfaction is related to multiple facets like- nature of job, job environment, relationship with co-workers, achievement recognition, promotional opportunities and pay (Griffeth, Hom, and Gaertner, 2000; Otanga and Mange, 2014). First class non-

academic employees of the university are more satisfied with those facets than their fellow job position holders. Unique job position, flexibilities within job, occupational support from co-workers and favorable working conditions are strongly related to employee's job satisfaction (Bond et al., 2004; Perie and Barker, 1997). As compared with the third and fourth class, first class nonacademic employees are more likely to have higher levels of job flexibility, chance for advancement, administrative support and working-time autonomy. They have continuous attachment with higher authority figures from where they can get access, support and disclose their demands and these factors reduce their perceived job stress and increase the mental satisfaction which also related with their motivational factors of job satisfaction (Spencer and Byrne, 2016). Third and fourth class non-academic employees usually have to face several problems likeminor status role, feeling of discrimination, poor management style and communication, punitive leader behavior, work overload, low wages, lack of flexibility in work and poor work condition which simultaneously made them less satisfy within their job. These factors may be responsible to lowering the job satisfaction levels of third and fourth class non-academic university employees as compared to the first class. Moreover, significant interaction effect was found between job position of staffs and gender.

While considering the job involvement of employees according to their job position, it was evident that first class non-academic employees had greater job involvement than the third and fourth class employees. Though the finding is contrary to the previous finding of Dienhart and Gregoire (1993) but is consistent with those of Brown and Leigh (1996) and Diefendorff, Brown, Kamin, and Lord (2002) who found that employees are having higher job satisfaction also possess greater job involvement as these two factors are positively correlated. Satisfied employees tend to be more dedicated, creative and committed to institutions than dissatisfied one (Syptak, Marsland, and Ulmer, 1999). Satisfied employees seem more likely to display positive behavior towards the overall functioning of the organization resulting increased job involvement (Bagraim and Werner, 2007). First class non-academic employees had higher job satisfaction and that's why their job involvement also seemed to be higher. On the other hand, third and fourth class non-academic employees had lower job involvement than first class employees. Having their lower job involvement can also be illustrated from several factors like- workload, staff tension and conflicts, lack of support from colleagues, lack of increment or reward, office politics, change role perceptions,

ambiguity in assigned responsibilities and unfavorable working condition (Perie and Barker, 1997).

The present study revealed that job position of non-academic employees at university exerted significant effects on both the job satisfaction and job involvement. Effective efforts to reduce the status differences among different job positions of employees might be a way to enhance their job satisfaction and job involvement. Practices like increasing inter group cohesion, designing healthy work environment, hosting communal lunches, establishing cross-functional and self-managed teams might foster a greater sense of togetherness and collective spirit, which might contribute to long-term job involvement and satisfaction in third and fourth class non-academic employees of the public universities in Bangladesh. Team building from different job position of staffs can encourage mutual reciprocation and build interpersonal relationships that might contribute to a sense of involvement and satisfaction on the job. To inspire the highest level of performance, university authority must create training opportunities that enable employees to receive the support they need to advance their careers and contribute to organizational effectiveness.

The present study has some limitations as it was conducted with a small sample (n = 180). Moreover, the selection of only Chittagong University's non-academic employees can't ensure the generalization of the findings accurately. This initiates the necessity of further in-depth research considering a large representative sample for exploring the effect of other important contributing factors of job satisfaction and job involvement in non-academic employees of public universities in Bangladesh.

REFERENCES

- ABOSEDE, S. C. 2014. Gender differences in job satisfaction of academic and non-academic staff of Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria. *Journal of education and practice*, **5**(22): 34-41.
- ALI, T., AND AKHTER, I. 2009. Job satisfaction of faculty members in private universities—in context of Bangladesh. *International business research*, **2**(4): 167-175.
- AMUNE, J. B. 2014. A comparative study of the determinants of job satisfaction among male and female librarians in public university libraries in Edo state of Nigeria. *International journal of education and research*, **2**: 649-660.

- ARANYA, N. KUSHNIR, T., AND VALENCY A. 1986. Organizational commitment in a male dominated profession. *Human relations*, **39**(5): 433-448.
- BAGRAIM, J., AND WERNER, A. 2007. Organisational behaviour: A contemporary South African perspective. Pretoria: Van Schaik.
- BOND, M. A., PUNNETT, L., PYLE, J. L., CAZECA, D., AND COOPERMAN, M. 2004. Gendered work conditions, health, and work outcomes. *Journal of occupational health psychology*, **9**(1): 28-45.
- BRAYFIELD, A. H., AND ROTHE, H. F. 1951. An index of job satisfaction. *Journal of applied psychology*, **35**(5): 307-311.
- BROWN, S. P., AND LEIGH, T. W. 1996. A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of applied psychology*, **81**(4): 358-368.
- CHIU, R. K., MAN, J. S., AND THAYER, J. 1998. Effects of role conflicts and role satisfactions on stress of three professions in Hong Kong: A path analysis approach. *Journal of managerial psychology*, **13**(5/6): 318-333.
- COOMBER, B., AND BARRIBALL, K. L. 2007. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature. *International journal of nursing*, **44:** 297–314.
- DIEFENDORFF, J. M., BROWN, D. J., KAMIN, A. M., AND LORD, R. G. 2002. Examining the roles of job involvement and work centrality in predicting organizational citizenship behaviors and job performance. *Journal of organizational behavior*, **23**(1): 93-108.
- DIENHART, J. R., AND GREGOIRE, M. B. 1993. Job satisfaction, job involvement, job security, and customer focus of quick-service restaurant employees. *Journal of hospitality and tourism research*, **16**(2): 29-43.
- DINHAM, S., AND SCOTT, C. 2000. Moving into the third, outer domain of teacher satisfaction. *Journal of educational administration*, **38**(4): 379-396.
- FRONE, M. R., AND RICE, R. W. 1987. Work family conflict: The effect of job and family involvement. *Journal of organizational behavior*, **8**(1): 45-53.
- GRIFFETH, R. W., HOM, P. W., AND GAERTNER, S. 2000. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of management*, **26**(3): 463-488.

- JOSIAS, B. A. 2005. The relationship between job satisfaction and absenteeism in a selected field services section within an electricity utility in the Western Cape. Doctoral dissertation, University of the Western Cape, Cape Town.
- KANUNGO, R. N. 1979. The concepts of alienation and involvement revisited. *Psychological bulletin* **86**(1): 119.
- KANUNGO, R. N. 1982. Measurement of job and work involvement. *Journal of applied psychology*, **67**(3): 341-349.
- KHALEQUE, A. 1976. Bangla adaptation of job satisfaction scale (JSS). Unpublished manuscript, University of Dhaka, Dhaka.
- KHALEQUE, A. 1995. Bangla adaptation of job involvement scale (JIS). Unpublished manuscript, University of Dhaka, Dhaka.
- KHAN, K., AND NEMATI, A. R. 2011. Impact of job involvement on employee satisfaction: A study based on medical doctors working at Riphah International University Teaching Hospitals in Pakistan. *African Journal of business management*, **5**(6): 2241-2246.
- KLECKER, B. 1997. Male elementary school teachers' ratings of job satisfaction by years of teaching experience. Paper presented at the annual meeting of the mid-south educational research association, Memphis, November, 12.
- KUNDU, R. 2015. Job involvement of employees of private sector banks in relation to their gender and locality. *Global international research thoughts*, **1**(7): 22-28.
- LODAHL, T. M., AND KEJNAR, M. 1965. The definition and measurement of job involvement. *Journal of applied psychology*, **49**(1): 24-33.
- LOVE, K., AND SINGER, M. 1988. Self-efficacy, psychological well-being, job satisfaction, and job involvement: a comparison of male and female police officers. *Police Studies*, **11**: 98–102.
- MABEKOJE, S. O. 2009. Gender differences in job satisfaction among secondary school teachers. *African journal of research in personnel and counselling psychology*, **1**(1): 99-108.
- MANUBHAI, L. U., AND VAGHELA, K. 2017. Job involvement and occupational stress among female and male government employees. *International journal of science and research (IJSR)*. **6**(7): 1123-1126.
- MCCANN, D. R. 2002. A study of job satisfaction among directors of classified personnel in merit (civil service) systems in California public school districts, county offices of education, and community college districts. Universal-publishers.

- MOWDAY, R. T., PORTER, L. W., AND STEERS, R. M. 2013. Employee—organization linkages: The psychology of commitment, absenteeism, and turnover. Academic press.
- MURAD, M. M. I., ZAYED, N. M., AND MUKUL, A. Z. A. 2013. A study on job satisfaction: Focus on bankers of Bangladesh. *European journal of business and management*, **5**(17): 14-20.
- NAWI, C. N., ISMAIL, M., IBRAHIM, M. A. H., RASTON, N. A., ZAMZAMIN, Z. Z., & JAINI, A. 2016. Job satisfaction among academic and non-academic staff in public universities in Malaysia: A Review. *International journal of business and management*, **11**(9): 148-153.
- OTANGA, H., AND MANGE, D. 2014. Contribution of personal characteristics and school context factors to job satisfaction among primary school teachers in coast province, Kenya. *International journal of education and research*, **2**(7): 469-480.
- PERIE, M., AND BAKER, D. P. 1997. Job Satisfaction among America's teachers: Effects of workplace conditions, background characteristics, and teacher compensation. Statistical analysis report.
- RAHMAN, M. H., FATEMA, M., AND ALI, M. 2019. Impact of motivation and job satisfaction on employee's performance: An empirical study. *Asian journal of economics, business and accounting*, **10**(4): 1-10.
- SARKER, M. N. I., AND RASHID, M. H. O. 2015. An impact of banking activities of private commercial Islamic bank to economic development in Bangladesh: A case study on First Security Islami Bank Limited (FSIBL). *Journal of investment and management*, **4**(5): 264-272.
- SCHAUFELI, W. B., SALANOVA, M., GONZÁLEZ-ROMÁ, V., AND BAKKER, A. B. 2002. The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of happiness studies*, **3**(1): 71-92.
- SPECTOR, P. E. (2012). *Industrial and organizational psychology: Research and practice*. New York: John Wiley & Sons, Inc.
- SPENCER, R. J., AND BYRNE, M. K. 2016. Relationship between the extent of psychopathic features among corporate managers and subsequent employee job satisfaction. *Personality and individual differences*, **101**: 440-445.
- SUKI, N. M., AND SUKI, N. M. 2011. Job satisfaction and organizational commitment: The effect of gender. *International journal of psychology research*, **6**(5): 1-15.

- SUTHERLAND, J. 2013. Employment status and job satisfaction, *Evidence-based HRM*, **1**(2): 187-216.
- SYPTAK, J. M., MARSLAND, D. W., AND ULMER, D. 1999. Job satisfaction: Putting theory into practice. *Family practice management*, **6**(9): 26-30.
- YANG, H., MIAO, D., ZHU, X., SUN, Y., LIU, X., AND WU, S. 2008. The influence of a pay increase on job satisfaction: A study with the Chinese army. *Social Behavior and Personality: An International Journal*, **36**(10): 1333-1339.

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