

Cash Benefits Payment for Maternity Leave: An Analysis on Some NGOs in Bangladesh

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Abstract Cash payment is an important benefit to the female employees for maternity leave that plays significant role to increase organizational commitment, efficiency and job satisfaction. The purpose of the study is to assess the level of cash benefit payment for maternity leave at the different NGOs on different organizational level in Bangladesh. Frequency distribution and chi-square test have been used on the data extracted from one hundred female employees experiencing at least one child at the different NGOs in Bangladesh. These have been employed to explore the current situation of socio-economic and maternity cash benefit related characteristics of the respondents and finally, binary logistic regression analysis has been employed to estimate the existence relationships among the variables. In chi-square test, it is found that age, skill of the employee and length of present service have significant effects on cash payment of maternity leave. In logistic model, age, place of living, skill of employee, duration of maternity leave, properly enjoyed maternity leave and length of present service are played statistically significant role on payment of maternity leave at NGOs in Bangladesh. Evidently, 73% employees get cash benefits for maternity leave and 27% do not get any cash payment benefits for maternity leave at different NGOs in Bangladesh.

Keywords Maternity Leave, Cash Benefit, Binary Logistic Regression Analysis, Correct Classification Rate (CCR), Cross Validity Prediction Power (CVPP), F-test and Non-Government Organization (NGO)

1. Introduction

NGO (Non-Government Organization) is very recognized and their activities are prevalent in Bangladesh[1]. NGO refers NGO refers 'association voluntary formed by individuals for the purpose of rendering welfare and development services outside Government Structure: drawing funds from national and international sources; and functioning within the legal framework of the country'[2], and 'non-profitable organization'[3]. In recent years, many countries have observed a large increase in female labor force participation rates and mothers with young children increasing the most[4; 5]. NGOs have greater contributed to the employment generation in Bangladesh, mostly in women employment[6]. Thus, maternity leave is a matter, as the mass women have child at some time of their service lives[7].

'Maternity Benefit' means leave with wages granted to a female worker because of her giving birth to a child[8]. Usually, maternity cash benefit is available to mothers'

only[9]. At first, maternity benefits were introduced to protect the health of working mothers and their newborn child[9], to protect female workers from heavy work conditions, and later, to preserve of job opportunities of young mothers who want to return job after birth[10]. Maternity leave is important to women's labor-force attachment and career progression; and gender equality in paid employment and the household[11; 12], raise the labor market participation[13-16]; leave regulations guarantee the pre-birth job and offer financial support[17]. In UK, maternity rights were first introduced under the Social Security Act 1973 for each pregnancy and the right to return to work with the original employer[18] and in India, to provide nutrition support to pregnant women in 2001 named National Maternity Benefit Scheme (NMBS)[19]; and later, to provide cash incentives for women choosing to have institutional deliveries and to encourage women of low socioeconomic status to give in health facility in 2005 named Janani Suraksha Yojana (JSY)[19; 20]; and in USA, to guarantee employees the right to return to their provisions with no loss of benefits at the end of leave by Family and Medical Act (FMLA) in 1993[21].

There are huge dissimilarities in maternity benefit rights across different countries. On one side, countries in Northern Europe; such as Sweden, Norway or Germany; mandate very

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generous paid leave and long periods of job protection after birth. On the other side, there are few countries, such as the United States, which have no paid leave mandate and offer little job protection[22; 12]. In the global, Austria, Belarus, Bulgaria, Denmark, France, Ireland, Latvia, Malta, Netherlands, Poland, Spain, Switzerland, Ukraine etc. in Europe; Argentina, Barbados, Brazil, Colombia, Costa Rica, Chile, Cuba, Ecuador, Honduras, Mexico, Panama, Peru, Uruguay, Venezuela etc. in South and North America; Algeria, Angola, Benin, Burkina Faso, Cameroon, Congo, Egypt, Gabon, Gambia, Ghana, Kenya, Mali, Mauritania, Morocco, Senegal, Sudan, Uganda, Tanzania, Togo, Zambia, Zimbabwe etc. in Africa; Afghanistan, Azerbaijan, Bahrain, China, India, Indonesia, Iran, Israel, Jordan, Korea, Kuwait, Lebanon, Malaysia, Singapore, Saudi Arab, Sri Lanka, Syria, UAE, Vietnam, Yemen etc. in Asia provide 100% cash benefit; like these countries Bangladesh also provides 100% cash benefit. In some countries, cash benefits are only available for a definite number of births. In Malaysia, cash benefits are granted for a women's first five children; in Egypt, three times during a spell of employment; whereas in Bangladesh, only for two child in the entire employment[23].

Therefore, the objective of this study is to evaluate cash benefit payment of the maternity leave at the different NGOs on different managerial level in Bangladesh and also identify the level of discrimination in the cash payment during employees' leaving period.

2. Laws of Maternity Leave Regarding to Cash Benefits

2.1. Intercontinental Laws

2.1.1. Cash Benefits

Cash benefits shall be provided, in accordance with national laws and regulations, or in any other manner consistent with national practice, to women who are absent from work on leave.[*Convention No. 183, Article 6(1)*]

2.1.2. Amounts and Duration

Cash benefits shall be at a level which ensures that the woman can maintain herself and her child in proper conditions of health and with a suitable standard of living.[*Convention No. 183, Article 6(2)*]

Where, under national law or practice, cash benefits paid with respect to leave referred to in Article 4 are based on previous earnings, the amount of such benefits shall not be less than two-thirds of the woman's previous earnings or of such of those earnings as are taken into account for the purpose of computing benefits.[*Convention No. 183, Article 6(3)*]

Where, under national law or practice, other methods are used to determine the cash benefits paid with respect to leave referred to in Article 4, the amount of such benefits shall be comparable to the amount resulting on average from the

application of the preceding paragraph.[*Convention No. 183, Article 6(4)*]

Where practicable, and after consultation with the representative organizations of employers and workers, the cash benefits to which a woman is entitled during leave referred to in Articles 4 and 5 of the Convention should be raised to the full amount of the woman's previous earnings or of such of those earnings as are taken into account for the purpose of computing benefits.[*Recommendation No. 191, Paragraph 2*][23]

2.2. Domestic Laws

2.2.1. Section 47: Procedure Regarding Payment of Maternity Benefit

(1) Any pregnant woman entitled to maternity benefit under this act may, on any day, give notice either orally or in writing to her employer that she expects to be confined within eight weeks next following and may therein nominate a person for purposes of receiving payment of maternity benefit in case of her death.

(2) Any woman who has not given such notice and has been delivered of a child shall; within seven days, give similar notice to her employer that she has given birth to a child.

(3) When a notice referred to in sub-section (1) or (2) is received, the employer shall permit the women to absent her from work from the day following the date of notice in the case mentioned in sub-section (1); from the day of delivery in the case mentioned in sub-section (2) until eight weeks after the day of delivery.

(4) An employer shall pay maternity benefit to a woman entitled thereto in such one of the following ways as the woman desire, namely:

(a) for eight weeks, within three working days of the production of a certificate signed by registered medical practitioner stating that the woman is expected to be confined within eight weeks of the date of the certificate, and for the remainder of the period for which she is entitled to maternity benefit under this act within three working days of the production of proof that she has given birth to a child; or

(b) for the said period up to and including the day of delivery, within three working days of the production of proof that she has given birth to a child, and for the remainder of the said period, within eight weeks of the production of such proof; or

(c) for the whole of the said period, within three working days of the production of proof that she has given birth to a child:

Provided that a woman shall not be entitled to any maternity benefit or any part thereof, the payment of which is dependent upon the production of proof under this sub-section that she has given birth to a child, unless, such proof is produced within three months of the day of her delivery.

(5) The proof required to be produced under sub-section (4)

shall be either a certified extract from a birth register under the births and deaths registration act, 2004 (XXIX of 2004) or a certificate signed by a registered medical practitioner or such other proof as may be accepted by the employer.

2.2.2. Section 48: Amount of Maternity Benefit

(1) The maternity benefit which is payable under this act shall be payable at the rate of daily, weekly or monthly average wages, as the case may be, calculated in the manner laid down in sub-section (2), and such payment shall be made wholly in cash.

(2) For the purpose of sub-section (1) the daily, weekly or monthly average wages, as the case may be, shall be calculated by dividing the total wages earned by the woman during the three months immediately preceding the date on which she gives notice under this act by the number of day she actually worked during the period[24].

3. Data and Methods

This is a cross sectional study involving 100 female employees of all ages who have at least one child and are experienced in maternity leave extracted from various non-government organizations (NGOs) in Bangladesh. Data on some selected socio-economic and maternity leave related factors have been collected through questionnaire method during November to December, 2012. To fulfill the objective, frequency distribution, chi-square test, binary logistic regression analysis and correct classification rate (CCR) method have been utilized in this study. Initially, the frequency distribution has been used to explore the current situation of socio-economic and maternity cash benefit payment related characteristics of the respondents and finally, chi-square test, binary logistic regression analysis and CCR have been employed to estimate the existence relationships among them. The analyses of the data have been made using the statistical software SPSS-20 version.

To check how much the model is stable over the population, the cross validity prediction power (CVPP), ρ_{cv}^2 , is applied. Here

$$\rho_{cv}^2 = 1 - \frac{(n-1)(n-2)(n+1)}{n(n-k-1)(n-k-2)}(1-R^2); \text{ Where, } n \text{ is}$$

the number of cases, k is the number of predictors in the model and the cross validated R is the correlation between observed and predicted values of the dependent variable[25]. The shrinkage coefficient of the model is the positive value of $(\rho_{cv}^2 - R^2)$; where ρ_{cv}^2 is CVPP and R^2 is the coefficient of determination of the model. 1-shrinkage is the stability of R^2 of the model. The information on model fitting and estimated CVPP has been demonstrated in the results and discussion section. It is noted that CVPP was also employed as model validation[26-32].

To verify the measure of the overall significance of the model as well as the significance of R^2 , the F-test is employed here. The formula for F-test is given below:

$$F = \frac{R^2 / (k-1)}{(1-R^2) / (n-k)}$$

Where k = the number of parameters is to be estimated, n = the number of cases, (k-1, n-k) = degrees of freedom and R^2 is the coefficient of determination of the fitted model[33]. These estimates are shown in the results and discussion section.

It is noted that Islam[34-36], Islam and Hossain[37; 38] and Islam et al.[39] used F-test as overall significance of a model.

4. Results and Discussion

4.1. Results of Cash Payment of Maternity Leave Practices at NGOs in Bangladesh

The results of descriptive statistics have been demonstrated in table 1 where the frequency with percentage distribution and association of the selected socio-demographic and maternity leave related characteristics and cash payment of leaving period among employees at NGOs in Bangladesh is revealed. In table 1, it is observed that 44% and 13% employees got leave with pay are belonged to 25-29 years and 20-24 years respectively. There are 36% employees who completed SSC and HSC; 37% employees who completed higher degree, got leave with pay. There are 32% and 12% employees got leave with pay whose monthly income is \leq TK 10000 and $>$ TK 15000 respectively. There are also 43% and 30% employees received leave with pay those who are leaving sub-urban and rural correspondingly. It is also observed that 38% and 35% employees those who occupied management position as Officer and Management personnel and Field worker obtained leave with pay. There are 50% employees who are experienced and 23% employees, who are under training and trained, are getting leave with pay. It is found that 36% employees and 7% employees, whose length of service is more than 4 years and 1-2 years respectively, acquired leave with pay. Of all employees, only 52% and 21% employees obtained leave with pay for period of 4 months and 3 months respectively. In case of properly enjoyed maternity leave, it is observed that only 4% employees did not enjoy leave properly, but they got leave with pay and 69% employees' availed leave with pay properly. Finally, 15% employees are terminated, discharged or dismissed due to leave during their leaving period but enjoyed cash benefit, and 58% employees did not face any such kind of discrimination during their leave and availed leave with pay. The χ^2_{cal} and p values of the different variables as age, education, salary, place of living, level of present job, skill, length, duration of leave, properly enjoyed leave and termination due to leave are (6.866, 0.032), (0.307, 0.579), (2.841, 0.242), (0.091, 0.763), (0.120, 0.729), (19.889, 0.000), (30.556, 0.000), (0.007, 0.933), (0.131, 0.718) and (0.421, 0.516) respectively. Consequently, age,

skill and length of present service of the respondents' are statistically significant; and education, salary, place of living, level of job, duration of leave, properly enjoyed leave and termination due to leave are statistically insignificant.

Table 1. Results of Association between Socio-demographic and Maternity Leave Related Characteristics and Cash Payment of Leaving Period among Employees at NGOs in Bangladesh

Variables	Payment of Leaving Period		Total	χ^2_{cal} and ρ Value
	Without Pay	With Pay		
Age Group				
20-24 years	11	13	24	$\chi^2_{cal}=6.866$ $\rho=0.032$
25-29 years	14	44	58	
30-40 years	2	16	18	
Total	27	73	100	
Education				
SSC and HSC Pass	15	36	51	$\chi^2_{cal}=0.307$ $\rho=0.579$
Higher	12	37	49	
Total	27	73	100	
Monthly Salary				
≤ TK 10000	14	32	46	$\chi^2_{cal}=2.841$ $\rho=0.242$
TK 10100-15000	12	29	41	
> TK 15000	1	12	13	
Total	27	73	100	
Current Place of Living				
Sub-urban	15	43	58	$\chi^2_{cal}=0.091$ $\rho=0.763$
Rural	12	30	42	
Total	27	73	100	
Level of Present Job				
Officer and Managerial Personnel	13	38	51	$\chi^2_{cal}=0.120$ $\rho=0.729$
Field Worker	14	35	49	
Total	27	73	100	
Worth/Skill of Employee				
Under training and trained	22	23	45	$\chi^2_{cal}=19.889$ $\rho=0.000$
Experienced	5	50	55	
Total	27	73	100	
Length of Present Service				
1-2 years	16	7	23	$\chi^2_{cal}=30.556$ $\rho=0.000$
3 years	9	30	39	
4 years and above	2	36	38	
Total	27	73	100	
Duration of Maternity Leave				
3 months	8	21	29	$\chi^2_{cal}=0.007$ $\rho=0.933$
4 months	19	52	71	
Total	27	73	100	
Properly Enjoyed Maternity Leave				
No	1	4	5	$\chi^2_{cal}=0.131$ $\rho=0.718$
Yes	26	69	95	
Total	27	73	100	
Terminate or Discharge due to				
Leave				
No	23	58	81	$\chi^2_{cal}=0.421$ $\rho=0.516$
Yes	4	15	19	
Total	27	73	100	

4.2. Determining the Factors Affecting on Cash Payment of Maternity Leave

The results of binary logistic regression analysis have been depicted in table 2 which contains the estimate of binary logistic regression coefficients (β), standard error of estimates $\{S.E.(\beta)\}$, p-value and odds ratio with 95% confidence interval (C.I.) that are calculated for each of the categorical variable. According to the fitted model, age group, current place of living, worth/skill of employee, duration of maternity leave, properly enjoyed maternity leave and length of present service have played statistically significant role on payment of maternity leave at NGOs in Bangladesh. Again, it is found from table 2 that -2Log likelihood is 71.177, Cox and Snell R square is 0.491, Nagelkerke R square is 0.654 in this model. It implies that there are 49.1% (according to the value of Cox and Snell R square) and 65.4% (according to the value of Nagelkerke R square) variation on payment of maternity leave by the selected variables.

Respondent's age has been appeared as an important factor affecting on payment of maternity leave. The regression coefficients for the respondents aged 25-29 years and 30-40 years are 1.380 and 1.415 respectively and the corresponding odds ratios are 3.976 (95% C.I. [0.779,

19.791]) and 4.118 (95% C.I.[0.361, 46.990]). The result depicts that the likelihood of getting payment of maternity leave is 3.976 and 4.118 times more for the respondents aged 25-29 years and 30-40 years compared to the respondents aged 20-24 years respectively. It is clear that the tendency of getting payment of maternity leave at NGOs increases with increasing their age.

Current place of living is another significant factor in case of getting payment of maternity leave. The regression coefficient of the respondents who currently lives in rural areas is 1.182 with odds ratio 3.262 (95% C.I.[0.719, 14.805]) which implies that the respondents who currently lives in rural areas relative to sub-urban areas are 3.262 times more likelihood of receiving payment in case of maternity leave.

Worth/skill of employee plays a vital role in case of being paid payment of maternity leave at NGOs in Bangladesh. The regression coefficient of experienced employees is 1.675 and the corresponding odds ratio is 5.337 with 95% C.I.[0.639, 44.566]. It is revealed from the results that the experienced employees compared to under training and trained employees have 5.337 times more likelihood of getting payment of maternity leave. Clearly, with increasing experiences, the chance of obtaining payment of maternity leave increases at NGOs in Bangladesh.

Table 2. Results of Binary Logistic Regression Analysis of Payment of Maternity Leave by Some Selected Factors (1=any types of payment during leave)

Explanatory Variables	Coefficients (β)	S.E. of Estimates {S.E.(β)}	p Value	Relative Risk {EXP(β)}	95% C.I. for EXP(β)	
					Lower	Upper
Age Group						
20-24 years[ref.]	.....	.....	.....	1.000		
25-29 years	1.380	0.819	0.092	3.976	0.799	19.791
30-40 years	1.415	1.242	0.255	4.118	0.361	46.990
Current Place of Living						
Sub-urban[ref.]	.....	.....	.....	1.000		
Rural	1.182	0.772	0.125	3.262	0.719	14.805
Worth/Skill of Employee						
Under training and trained[ref.]	.....	.....	.....	1.000		
Experienced	1.675	1.083	0.122	5.337	0.639	44.566
Duration of Maternity Leave						
3 months[ref.]	.....	.....	.....	1.000		
4 months	1.600	0.523	0.002	4.955	1.779	13.797
Properly Enjoyed Maternity Leave						
No[ref.]	.....	.....	.....	1.000		
Yes	1.740	0.785	0.027	5.698	1.222	26.561
Length of Present Service						
1-2 years[ref.]	.....	.....	.....	1.000		
3 years	0.431	0.446	0.334	1.538	0.642	3.685
4 years and above	1.962	0.797	0.014	7.116	1.492	33.932
-2 Log likelihood = 71.177 Cox & Snell R square = 0.491 Nagelkerke R square = 0.654						

Duration of leave plays an important role in case of maternity benefit particularly safe delivery. The regression coefficient of employees who has got 4 months as maternity leave is 1.600 with odds ratio 4.955 (95% C.I.[1.779, 13.797]) which indicates that the likelihood of acquiring payment of maternity leave is 4.955 times more for the employees who has got 4 months as against 3 months as maternity leave.

Properly enjoyed leave is another important factor for maternity. The regression coefficient of employees who has enjoyed maternity leave properly is 1.740 and the corresponding odds ratio is 5.698 with 95% C.I.[1.222, 26.561]. It is depicted from the results that the employees who has enjoyed maternity leave properly relative to not is 5.698 times more likelihood of getting payment of maternity leave.

Again, length of present service plays also important role in case of contracting payment of maternity leave at NGOs in Bangladesh. The regression coefficients of employees whose length of present service is 3 years and ≥ 4 years are 0.431 and 1.962 respectively and the corresponding odds ratios are 1.538 (95% C.I.[0.642, 3.685]) and 7.116 (95% C.I.[1.492, 33.932]). The results clarify that the likelihood of obtaining payment of maternity leave is 53.8% more for the employees whose length of present service is 3 years compared to whose length of present service is 1-2 years. Again, the employees whose length of present service are 4 years and above as against reference category are 7.116 times more likelihood of getting payment of maternity leave. Clearly, the tendency of receiving payment of maternity leave increases at NGOs in Bangladesh with increasing length of service.

4.3. Results of CCR

Table 3 represents the correct classification rate (CCR) which has been used to measure the fitness of the model. If it is used 0.500 as the threshold or cut value, 0.860 has been found as the value of CCR. Since a model that affords better classification should be judged superior by the goodness of fit test that indirectly assesses the classification performance of the model. It has been concluded through classification performance that the fitted model may be used for prediction.

Table 3. Results of Correct Classification Rate (CCR) of Logistic Model

Observed		Predicted		
Payment of Maternity Leave	Payment of Maternity Leave		Percentage Correct	
	Without pay	With any types of pay		
Without pay	19	8	70.4	
With any types of pay	6	67	91.8	
Overall Percentage			86.0	
a. The cut value is 0.500				

4.4. Results of CVPP and F-test

The estimated CVPP and R^2 of the given logistic model are 0.417 and 0.491 respectively. The shrinkage coefficient

of the model is 0.0739 and the stability of R^2 of the model is more than 92%. Hence the fitted model is well due to shrinkage coefficient. The calculated value of F-statistic of the model is 18.1352 with (5, 94) degrees of freedom (d.f.) where as the corresponding tabulated value is only 3.245 at 1% level of significance. Therefore, from these statistics it is also concluded that the constructed model is statistically significance and hence, the fit of the model is well.

5. Conclusions

Different variables have diverse impacts on maternity cash payment for maternity leave at NGOs sectors' in Bangladesh. In this study, it is found that 73% women get cash benefits during their leaving period for maximum 3 and 4 months; and 19% employees are terminated or discharged due to leave at the different NGOs in Bangladesh. Age, place of living, skill of employee, duration of maternity leave, properly enjoyed maternity leave and length of present service have played statistically significant role on payment of maternity leave at NGOs in Bangladesh. It is clear that the tendency of getting payment of maternity leave at NGOs increases with increasing their age. Current place of living implies that the respondents who currently live in rural areas relative to sub-urban areas are getting 3.262 times more payment. Evidently, with increasing experiences, the chance of getting payment of maternity leave increases at NGOs in Bangladesh. Duration of leave plays an important role in case of maternity benefit particularly safe delivery which indicates that the likelihood of getting payment of maternity leave is 4.955 times more for the employees who has got 4 months as against 3 months as maternity leave. It is depicted from the results that the employees who has enjoyed maternity leave properly relative to not is 5.698 times more likelihood of getting payment of maternity leave. Again, the tendency of getting payment of maternity leave increases at NGOs in Bangladesh with increasing length of service. The findings of this study would be very helpful to the NGOs owners and authority to implement proper maternity cash benefit policy at their organizations. Further, this will also be supportive to the Lawyers, Researchers, Academies and Businesses for further development and policy implementation at the different level of employment. Thus, every NGO should follow the rules of cash payment strictly, reduce discrimination in the maternity cash payment and implement leave policy properly to remove discharge or termination on before or after of the leaving period to ensure employee satisfaction, productivity and efficiency.

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