The Effects of Wages and Welfare Facilities on Employee Productivity: Mediating Role of Employee Work Motivation

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Abstract

Purpose- Garment employee productivity in Bangladesh is the lowest compared to its competitors such as China, India, Pakistan and Sri Lanka. The Bangladeshi Ready-Made Garment (RMG) industry will find it a challenge to survive in the global market unless they improve employee productivity. Therefore, the primary purpose of this study was to observe the relationship among wages and benefits, welfare facilities, employee work motivation and employee productivity.

Design/Methodology/Approach- The study was conducted under the positivism philosophy for which Maslow's Hierarchy of Needs Theory was used for framing the hypotheses. A deductive approach, explanatory research design and a quantitative methodology was followed in order to conduct the study. Through a questionnaire survey, twenty-five items were taken from existing literature to measure the variables. By a systematic probability sampling technique, 500 samples were collected from the target population. Thereafter, SPSS and SEM using Smart-PLS were utilised for analysing and developing the model.

Findings- The outcome of the analysis revealed that all seven hypotheses were supported. Practical Implications- These findings will assist the policymakers, the government of Bangladesh, factory owners, managers and other stakeholders to formulate new policies and practices.

Originality/Value- This study explores the relationship among wages and benefits, welfare facilities, employee work motivation and employee productivity which has not been explored theoretically and tested empirically in a Bangladeshi context. In the future, comparative research can be carried out by collecting samples from the EPZ (Export Processing Zone) and non-EPZ factories.

***JEL classification**:* M40

Keywords: Employee work motivation, wages and benefits, welfare facilities, employee productivity, readymade garment industry, Bangladesh

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Introduction and Motivation of the Study

The Bangladesh RMG industry has secured the top position for foreign currency earnings from 1990 to 2019 (BGMEA, 2019) and has created 4 million employment opportunities for people in the country (BGMEA, 2019). This sector has grown rapidly over the last four decades and is now considered the lifeblood of the nation's economic progression (Woodruff, 2014; Noor-E-Hasnin & Ahsan, 2015). The readymade garment industry has a more significant prospect than any other sector in terms of female empowerment, poverty alleviation, employment opportunities and making a contribution to the national economy (Ahamed, 2014). It is the driving force for the economic development of the country (Hasan et al., 2018; Mahmud & Afrin, 2018). Bangladesh has already secured second place in garment exports in the global market scenario, following just behind China (Dhaka Tribune, 2019). In 2018, this sector earned nearly 83.49% of the foreign currency by exporting garments (BGMEA, 2019). It is playing a dominant role in the nation's rapid economic growth in real GDP of 6% per year over recent decades from 1990 to 2018 (BGMEA, 2018). In addition, it helps in the expansion of the female labour market from which the employment-to-population ratio improved from 22% to 34% between 2000 and 2010 (ILO, 2013).

Despite having these remarkable growth and success rates, there are many challenges currently being faced by the RMG industry of Bangladesh, including ensuring minimum wages, welfare facilities, employees' morale and motivation, and labour productivity (Alam et al., 2017). To retain this growth and safeguard their existing position in the world's RMG market, there is no alternative but to increase productivity (Hamja et al., 2018). Like China, the top manufacturer and exporter of the garments are making it costly for international buyers due to high wage rates and large-scale monetary investments. In contrarily, Bangladesh might be the next feasible choice for global garment buyers by having lower manufacturing expenses uniquely backed by low domestic wage rates (Rahman & Chowdhury, 2020). However, this industry is lacking in terms of manufacturing efficiency compared to its competitors. Recently, the minimum wage rate for garment workers increased by almost 77%; therefore, production efficiency and productivity has become an important issue. Competition is also high amongst garment exporting nations and the probabilities for bargaining on price are growing obsolete (Shibli, 2014). In this situation, it is crucial to be concerned about employee productivity in the RMG industry otherwise it could become difficult for this sector to sustain their place in the global market (Alam & Alias, 2018).

Problem Statement

Following the abolition of global quotas and multi-fibre agreements on trade in clothing and textiles under the World Trade Organization, on 1 January 2005, the RMG industry has faced tremendous challenges, especially when Bangladesh moved into the quota-free world market. Thus, it is an immense challenge for the garment industry of Bangladesh to preserve its existing market share and progress trade by increasing competitiveness (Hasan et al., 2018). However, Bangladesh's apparel industry growth is declining as it has seen only a 0.20% rise in the 2016/17 fiscal year, which is the lowest on record in the last fifteen years. This industry needs to create a competitive edge by improving employees' productivity to neutralise the effect of wage increases (Alam et al., 2019). The garment sector in Bangladesh needs to improve productivity to safeguard the sustainability of exports in the global marketplace (Shafiqul, 2014). To improve productivity, it is vital to identify, quantify and remove constraints. The RMG sector can achieve greater productivity and higher profit margins with better product quality, identifying and overcoming the problems that reduce productivity. Thus, there is a need to examine workers' productivity in the garment sector in Bangladesh (Karmaker & Saha, 2016). This study needs to be undertaken because there has been limited research to date

regarding the subject and none have used employee work motivation as a mediator in the relationship between wages and benefits, welfare facilities and employee productivity.

Research Objectives

The study observes the effects of wages, benefits and welfare facilities on employee productivity (E.P.) and employee work motivation (EWM). The following specific objectives have been set to achieve the primary objective:

RO1. To examine the effect of wages and welfare facilities on E.P.
RO2. To identify the mediating role of EWM in the relationship between wages and benefits, welfare facilities and E.P.

Underpinning Theory (Maslow's Hierarchy of Needs Theory – 1943)

Abraham Maslow (1943) propounded a conceptual model of human personality augmentation and motivation which was grounded on a hierarchy of human needs, which incorporated physiological need, safety need, need of love/belonging, need of self-esteem and need of self-actualisation. He further explained these five essential human needs as follows:

- The first lower-level need is physiological needs which are necessary for existence that comprises water, food, sleep, health, shelter, rest, sex and so on.
- The second lower level need is safety and security needs which are the need for safeguard from psychological and physical hazards and threats, and the permanence for the physiological needs to be fulfilled in the future.
- The third level need is love and a feeling of belonging, which is needed for social interaction, communication and support.
- The fourth need is esteem needs which are linked to self-esteem, esteem from others, adequate respect, self-achievement, a sense of belongingness and recognition.
- The fifth need is self-actualisation which includes achieving an individual's potential, empowerment, implementation of individual ideas and so on.

Abraham Maslow organised those needs by order of significance and presented them in a pyramidal hierarchy of needs as depicted above. This hierarchy of needs represents significant levels of individual requirements. Maslow proposed that unfulfilled needs can incite human behaviour. People's behaviours are mostly driven by desires and the want to fulfil physiological needs as well as safety and security needs, denoted as the primary needs. When these needs are at least minimally satisfied, the individual then strives to satisfy the higher-level needs that are named as secondary needs. The uppermost need is that of self-actualisation which will never be fully satisfied as Maslow attributed money to the bottommost level of the hierarchy and, as such, money is considered a tool used to satisfy lower-level needs of workers. His ideas provided broad coverage of the motivation application in modern administration. By identifying and determining the utmost crucial needs and attempting to fulfil those needs, wants and desires, this will enable managers to improve the productivity of their workforce through the provision of targeted motivators.

Conceptual Framework

Using Maslow's theory, a conceptual model was developed for the study in the context of the Bangladesh RMG industry workers and to observe whether Maslow's Need Hierarchy Theory was relevant in this context or not.

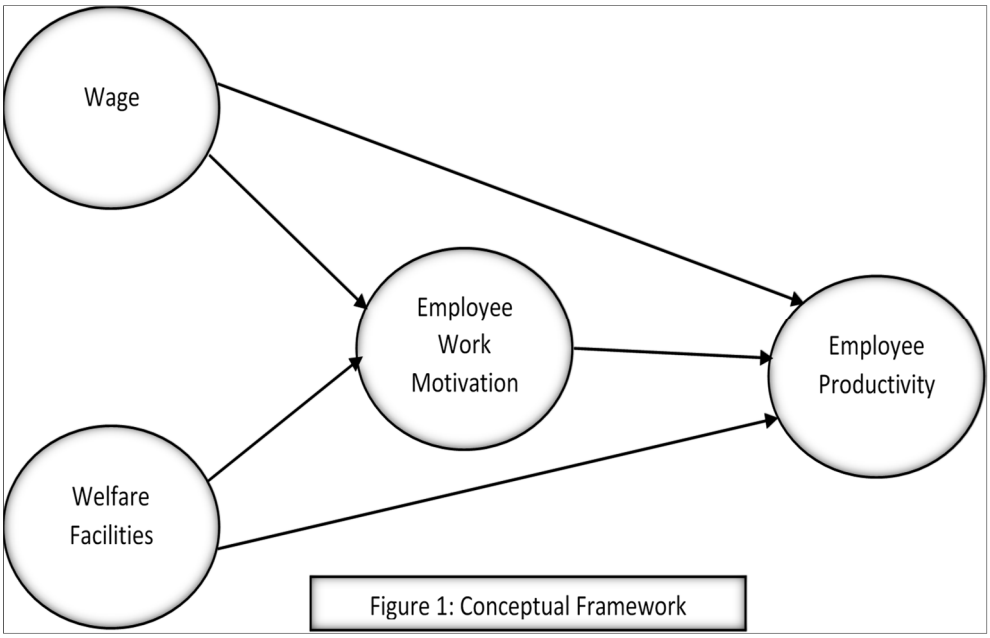

Figure 1: Conceptual Framework

Wages and Employee Productivity

Research on wage and benefit increases in Colombia highlighted a negative effect on employee performance, while the same research in Mexico showed no effect (Bell, 1997). However, the relationship between wages and employee productivity has been widely researched in labour economics (Coviello et al., 2019). Maslow's motivational theory recommended that a rise in wages should lead to better employee motivation and a motivated employee works harder and more devotedly and, thus, the employee productivity rate will be higher. The relationship between higher wages and a positive effect on employee productivity has been established. A similar study undertaken by Kim & Choi (2018) established that an enhancement in wages leads to an improvement in worker productivity. Gunawan & Amalia (2015) assumed that the effects of wages on employee productivity are constant. From the above discussion, a hypothesis was proposed in the context of the Bangladesh RMG industry, which is as follows:

H1: Wages have a significant positive effect on employee productivity.

Welfare and Employee Productivity

According to the study by Oludayo (2015), it was highlighted that employee welfare packages can enhance employee productivity. Workers' welfare facilities include, but are not limited to, free medical facilities and housing facilities, amongst others. The welfare of workers should be of the utmost priority at all times in an organisation as this will be an incentive to improve the efficiency and dedication of the employees within the organisation (Bharathi & Padmaja, 2018). Without a doubt, a happy and satisfied employee will reciprocate by giving the best performance. Patro (2015) stated that 'welfare' is a term that refers to the desirable state of existence which involves physical, moral, mental and emotional conditions of an employee, all of which directly and indirectly affect employee productivity (Islam et al., 2018). Therefore, it was hypothesised in the context of the RMG industry of Bangladesh that:

H2: There is a significant and positive effect of welfare facilities on employee productivity.

Wages and Benefits and Employee Work Motivation

The importance of wages in attracting and motivating good employees has been mentioned in numerous studies. Kampelmann et al. (2018) stated that people are motivated by wages, which has an impact on a worker's decision to join the company (O'Connor, 2018). In another study

(Matino, 2018), it was verified that employees' behaviour was associated with wages and better individual and organisational performance were demonstrated. In terms of the motivation of employees, wages, and benefits have a positive effect on employees' behaviours and attitudes towards work (Yee, 2018). A study by Baljoon et al. (2018) established the relationship between wages and motivation. Therefore, the following hypothesis was proposed in the context of the RMG industry of Bangladesh:

H3: There is a significant and positive relationship between wages and benefits and the motivation of employees.

Welfare and Employee Work Motivation

Muruu et al. (2016) stated that the concept of worker welfare programmes had been used by many organisations as a strategy to boost employee motivation. Padmini (2016) advised that the provision of welfare schemes was to generate an efficient, loyal, healthy and contented labour force within the company. The purpose of providing such facilities is to make their work-life better and raise their motivation at work. Manju & Mishra (2012) explained that worker welfare is a broad term comprising different benefits, facilities and services provided to workers by the employer to boost and motivate their employees. Staff welfare programs in both developed and developing societies would also affect the motivation of the workforce (Hassan et al., 2019). Organisations provide welfare facilities to their employees so that their motivation remains high (Tiwari, 2014). Thus, from the above literature, it can be hypothesised that:

H4: There is a significant positive effect of welfare facilities on employee work motivation in the RMG industry of Bangladesh.

Employee Work Motivation and Employee Productivity

From human relations theory, it is observed that motivation is the cause of the performance of the employees (Olusadum & Anulika 2018). Dina & Olowosoke (2018) observed that workers' productivity depends upon the workers' level of motivation. Workers productivity is genuinely influenced by motivation and, for that reason, if workers are motivated then they will perform their job with higher determination and by which productivity will eventually increase (Ajalie, 2017). Putra (2017) contended that an advanced level of intrinsic motivation leads to workers doing well with higher productivity in job tasks. It proposes a direct affirmative rapport between job performance and motivation (Evelyne et al., 2018; Oktosatrio, 2018). Various research has confirmed that motivation is linked to the employee's job performance (Singh, 2016; Bao & Nizam, 2015). Based on these findings, it can be hypothesised in the context of the RMG industry of Bangladesh that:

H5: There is a significant positive effect on employee work motivation on employee productivity.

Mediating Role of Employee Work Motivation in the Relationship Between Wages and Employee Productivity

Wages encompass all forms of financial returns, services, incentives and benefits received by workers, and it manifests itself as part of the employment relationship (Mikkelsen et al., 2017). Wages are a right that an employee is entitled to in response to the sacrifices he or she makes for the organisation. Murty & Hudiwinarsih (2012) argued that a motivated employee will be more than willing to do and complete the tasks assigned by the company compared to a worker with lower motivation and who will often display discomfort and displeasure with his/her work, thereby causing their performance to deteriorate, become worse and the company's goals will

be far from being achievable. Thus, wage management will affect the performance of employees either positively or negatively (Grabara, 2013). Bad wage management will result in demotivation, so the performance of employees will decline. This argument is based on Maslow's motivational theory (1943) which generally explained that one's motivation for his needs is naturally hierarchical and stratified. When the basic level of requirements have been achieved, someone will be promoted or upgraded to the ultimate self-actualisation. Compensation is assumed to be the company's efforts to reward employees' efforts and energy, other than just meeting the basic needs of its employees. With the aim to meet these basic needs, it is expected to encourage employee motivation. In this case, when these basic needs are met, employees will be further motivated to improve their performance further (Evelyne, 2018; Bose, 2018). Klopotan et al. (2018) indicated that wages would affect the high motivation of employees, which ultimately affects their performance as well. Thus, it is hypothesised that:

H6: Employee work motivation has a mediating role in the relationship between wages and employee productivity.

Mediating Role of Employee Work Motivation in the Relationship Between Welfare Facilities and Employee Productivity

Workers are an essential resource for goal achievement in any organisation (Olusadum & Anulika, 2018). Accordingly, industrial workers in all institutions or organisations should be motivated by benefiting from various welfare schemes to enable them to continue to perform their statutory duties (Alam et al., 2018). These welfare schemes are expected to be appealing enough for the workers to be motivated so that maximum productivity can be attained (Ochola, 2018). Human labour should be enhanced as the welfare schemes are provided to motivate them to better their performance (Evelyne, 2018). Inadequate welfare schemes could bring about industrial disputes, crises and a situation that could bring down the rate of productivity (Hanaysha & Majid, 2018; Zeb-Obipi, 2018). Providing adequate welfare facilities to workers and paying attention to the motivational forces of employees may give a positive effect on employee productivity (Olusadum & Anulika, 2018; Engetou, 2017). Thus, the next hypothesis in the context of the RMG industry of Bangladesh is that:

H7: Employee work motivation has a mediating role in the relationship between welfare facilities and employee productivity.

Research Methodology

The research was conducted under a positivism philosophy with a deductive approach, explanatory research design, cross-sectional time horizon data and quantitative methodology to measure all constructs of the model, such as wages, welfare facilities, employee work motivation and employee productivity. Self-administered and structured questionnaires were used to gather a sample from 3,436,847 employees working in the RMG industry of Bangladesh. A systematic random sampling procedure was used to select 500 participants for the study. The scheduled questionnaire method was considered to collect data, and the items of the questionnaire were taken from existing literature (Alam, 2018). In order to obtain the respondents' degree of agreeableness, this questionnaire used a five-point Likert scale and, for data analysis, the Partial Least Square–Structural Equation Modelling (PLS-SEM) system was used. Barroso, Carrión & Roldán, (2010) recommended that PLS data must be analysed in two stages using the measurement model and the structural model. This is intended to explain the interconnection of all variables tested by producing the standardised regression coefficients for the model (Götz et al., 2010). In addition, for the demographic profile, the descriptive analysis was carried out using SPSS.

Data Analysis and Findings

A stepwise procedure was maintained to analyse the collected data which are as follows;

Table 1: Demographic Profile of the Respondents

Department	**Frequency (n)**	**Percent (%)**
Sewing	172.00	34.40
Quality	74.00	14.80
Finishing	137.00	27.40
Printing	31.00	6.20
Knitting	43.00	8.60
Dyeing	18.00	3.60
Cutting	9.00	1.80
Weaving	16.00	3.20
Designation	**Frequency (n)**	**Percent (%)**
Machine operator	271.00	54.20
Quality Inspector	86.00	17.20
Iron man	55.00	11.00
Folder man	52.00	10.40
Helper	20.00	4.00
Packing man	10.00	2.00
Cutter man	4.00	0.80
Marker man	2.00	0.40
Gender	**Frequency (n)**	**Percent (%)**
Male	214.00	42.80
Female	286.00	57.20
Marital Status	**Frequency (n)**	**Percent (%)**
Single	228.00	45.60
Married	261.00	52.20
Divorced	11.00	2.20
Age	**Frequency (n)**	**Percent (%)**
18 to 25	308.00	61.60
26 to 35	176.00	35.20
Above 35	16.00	3.20
Level of Education	**Frequency (n)**	**Percent (%)**
Primary	100.00	20.00
Secondary	245.00	49.00
Intermediate	123.00	24.60
Above intermediate	32.00	6.40
Experience (years)	**Frequency (n)**	**Percent (%)**
Less than 3	197.00	39.40
3 to 7	132.00	26.40
8 to 12	155.00	31.00
Above 12	16.00	3.20
Gross Wage (Taka)	**Frequency (n)**	**Percent (%)**
5000 to 8000	277.00	55.40
8001 to 12000	133.00	26.60
Above 12000	90.00	18.00

Demographic Profile of the Respondents

The respondents varied in their demographic characteristics (see Table 1) as evidenced by the sample profile's descriptive analysis results. Data was collected from workers who were working in different RMG factories in Bangladesh. Descriptive statistics were used to analyse the demographic variables. The demographic variables were measured by considering eight factors: department, designation, gender, marital status, age, education level, experience and gross wage. The demographic details of the respondents are presented in a tabular form below.

Measurement Model (Construct Validity & Reliability)

Internal consistency is the first criteria for assessing the measurement model by measuring items and observed variables with each other (Figure 2). Notably, the underlying latent variable explains items variance that indicates item-reliability (Gotz et al., 2010, p.694). According to Chin (1998), the latent construct illustrates the standardised outer loadings (absolute correlation) which must be more than 50%. Table 2 presents the results based on PLS measurement analysis which is the absolute correlation between the construct and its measuring items and manifests that the factor loading was between 0.637 to 0.828, being above the minimum threshold criterion of 0.50 (Chin, 1998).

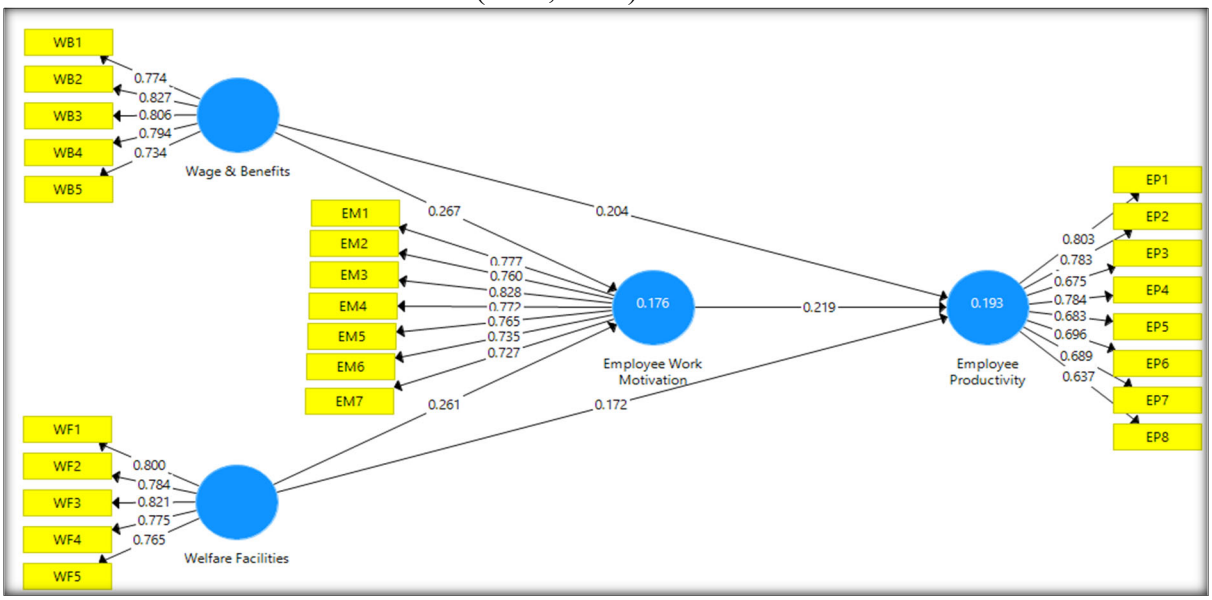

Figure 2: Measurement Model (PLS-Algorithm with Outer Loading)

The construct-level reliability was observed by composite reliability and Cronbach's alpha. Table 2 illustrates that the composite reliability was higher than the cut-off value of 0.70 (Nunnally & Bernstein, 1994) and the Cronbach's alpha was higher than the recommended value of 0.6 (Cronbach, 1951).

Hair et al. (2006) explained that the convergent validity is to observe items accurately that represent the underlying theoretical concept. Particularly, convergent validity demonstrates that the correlation between responses obtained through various measures represents the same construct (Peter, 1981). In another sense, it indicates that the set of items should signify the same underlying construct that can be verified by their unidimensionality (Henseler, 2009, p.299). For the present study, convergent validity was tested by utilising the universally established technique "Average Variance Extracted" (AVE) (Hair et al., 2006; Henseler, 2009; Tabachnick & Fidell, 2007). Table 2 illustrates that the Average Variance Extracted (AVE) for every latent variable was greater than the recommended value of 0.5 (50%) which indicated

that every construct could explain, on average, more than half of the variance to its measuring items (Fornell & Larcker, 1981).

Table 2: Internal Consistency and Convergence Validity Results

Factors/Items	Factor Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Employee Work Motivation		**0.883**	**0.909**	**0.588**
EM1	0.777			
EM2	0.760			
EM3	0.828			
EM4	0.772			
EM5	0.765			
EM6	0.735			
EM7	0.727			
Employee Productivity		**0.868**	**0.896**	**0.520**
EP1	0.803			
EP2	0.783			
EP3	0.675			
EP4	0.784			
EP5	0.683			
EP6	0.696			
EP7	0.689			
EP8	0.637			
Wages & Benefits		**0.847**	**0.891**	**0.620**
WB1	0.774			
WB2	0.827			
WB3	0.806			
WB4	0.794			
WB5	0.734			
Welfare Facilities		**0.848**	**0.892**	**0.623**
WF1	0.800			
WF2	0.784			
WF3	0.821			
WF4	0.775			
WF5	0.765			

Notes: C.R.: Composite Reliability; AVE: Average Variance Extracted; CA: Cronbach's Alpha

Measurement of Discriminant Validity

Discriminant validity reflects the actual distinctiveness of one construct from other constructs. There are various approaches to determining discriminant validity such as Fornell Larcker, Cross Loading and HTMT. Fornell Larcker is the first criterion that needs to be confirmed for discriminant validity. According to this process, the value of the square root of AVE of one construct must be higher than the value of inter-correlations between the constructs. A construct must represent more variance with its items than it does with others in the model. As depicted in Table 3, the square root of the AVE of all constructs was bigger than their corresponding inter-correlations. Therefore, the evaluation of validity and reliability advocates that the measurement model is acceptable.

Table 3: Discriminant Validity – Fornell Larcker

Factors	Employee Motivation	Employee Performance	Wages & Benefits	Welfare Facilities
Employee Work Motivation	0.767			
Employee Productivity	0.345	0.721		
Wages & Benefits	0.336	0.323	0.788	
Welfare Facilities	0.331	0.298	0.264	0.789

The cross-loading matrix is the second approach by which researchers examine discriminant validity. The item loading of one construct must be higher than its loading on other constructs. It indicates that the items of the construct are assessing the intended construct (Straub et al., 2004). The cross-loading of this study method is validating the discriminant validity presented in Table 4. The table elucidates that all items are loaded with the highest values to their related constructs.

Table 4: Cross Loading Results

Items	EWM	EP	Wages & Benefits	Welfare Facilities
EM1	0.777	0.297	0.216	0.251
EM2	0.760	0.265	0.210	0.223
EM3	0.828	0.249	0.341	0.281
EM4	0.772	0.274	0.282	0.262
EM5	0.765	0.259	0.272	0.265
EM6	0.735	0.234	0.206	0.240
EM7	0.727	0.272	0.255	0.249
EP1	0.267	0.803	0.320	0.263
EP2	0.261	0.783	0.245	0.211
EP3	0.209	0.675	0.213	0.143
EP4	0.292	0.784	0.224	0.227
EP5	0.208	0.683	0.173	0.185
EP6	0.284	0.696	0.288	0.263
EP7	0.280	0.689	0.193	0.213
EP8	0.135	0.637	0.147	0.178
WB1	0.304	0.194	0.774	0.235
WB2	0.272	0.247	0.827	0.247

WB3	0.271	0.274	0.806	0.173
WB4	0.268	0.296	0.794	0.199
WB5	0.201	0.255	0.734	0.191
WF1	0.266	0.249	0.141	0.800
WF2	0.268	0.206	0.269	0.784
WF3	0.268	0.221	0.175	0.821
WF4	0.236	0.262	0.252	0.775
WF5	0.268	0.237	0.211	0.765

The HTMT ratio was the third approach for discriminant validity. This seemed to be the better method as compared to cross-loadings and Fornell Larcker. According to Henseler et al. (2015), the values of the HTMT must be lower than 0.90. For the present study, the upper threshold value was 0.383 (Table 5), which complies with the discriminant validity as the value is lower than 0.90.

Table 5: HTMT Results

Factors	Employee Motivation	Employee Performance	Wages & Benefits	Welfare Facilities
Employee Motivation				
Employee Performance	0.383			
Wages & Benefits	0.383	0.363		
Welfare Facilities	0.381	0.339	0.314	

Assessment of the Structural Model

Once the measurement model had been ascertained, the next stage was to check the validity of the structural model. To validate the structural model, it was evaluated through essential criteria such as path coefficient (β), coefficient of determination for endogenous variables (R^2), effect size (*f2*), prediction relevance (*q2*) and multicollinearity (inner VIF) (Henseler et al., 2009; Chin 2010; Tenenhaus et al., 2005; Gotz et al., 2010). The threshold value and description for each benchmark are shown in a stepwise test of the structural model below.

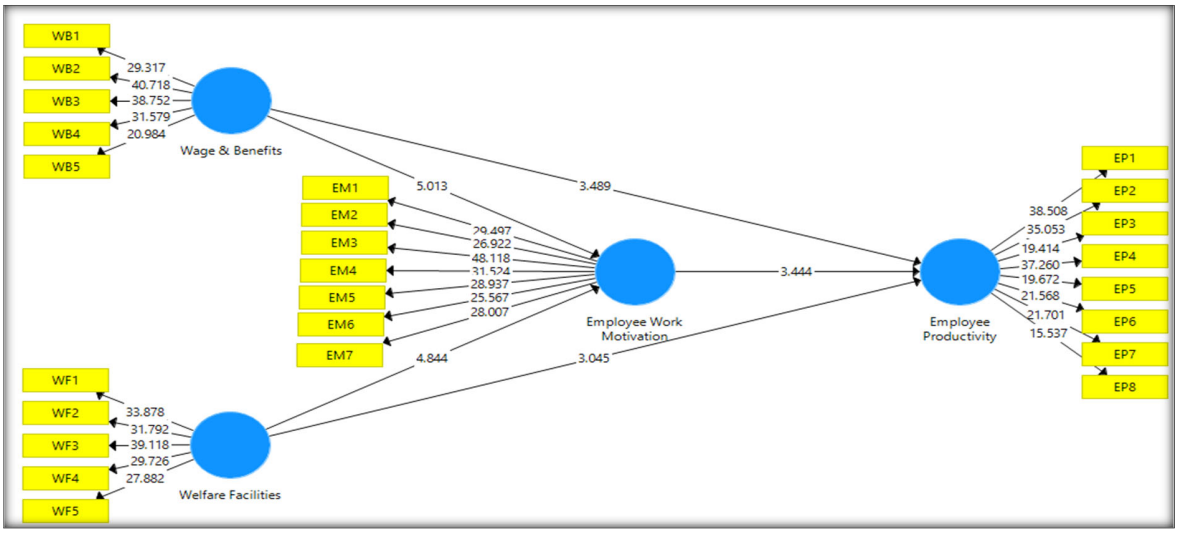

Figure 3: Structural Model (Bootstrapping with inner t-values)

Coefficient of Determination (R^2)

The R square reflects the variance explained by the endogenous construct. According to Klarner et al. (2013), the coefficient of determination (R^2) is the central criterion for the structural model's evaluation. Table 6 presents the R^2 results of this study, where the R^2 value of two endogenous variables were 0.176 and 0.193. The level of acceptance is as stated (0.02-weak), (0.13-moderate), (0.26-substantial) and according to the literature support of Cohen (2003) is in line with the results presented in Table 6. This value of R^2 which is 17% and 19% demonstrates a medium acceptable prediction level in empirical research (Gaur & Gaur, 2006).

Table 6: R-Square Result

Endogenous Variables	R Square	R Square Adjusted
Employee Work Motivation	0.176	0.172
Employee Productivity	0.193	0.188

Effect Size (*f2*)

Effect size was measured using F^2. The value between 0.00 to 0.15 indicates a small effect size, while the values between 0.16 to 0.35 show a medium effect, and the values above 0.35 indicate large effects (Sarstedt et al., 2017). The outcomes of the study are presented in Table 7 below.

Table 7: F-Square Result

Exogenous Variables	Employee Motivation	Employee Performance
Employee Motivation		0.490
Wages & Benefits	0.800	0.440
Welfare Facilities	0.770	0.320

Result of Multicollinearity (inner VIF)

According to Pallant (2007), the VIF values that are higher than 10 and lower than 0.1 demonstrate the presence of multicollinearity. In the current study, the results presented in Table 8 reveal that the highest VIF value was 1.213, and the lowest VIF value was 1.075, which advocates for the absence of multicollinearity within independent variables.

Table 8: Result of Multicollinearity – Inner VIF values

Exogenous Variables	Employee Motivation	Employee Performance
Employee Work Motivation		1.213
Wages & Benefits	1.075	1.161
Welfare Facilities	1.075	1.158

Predictive Relevance (Q^2)

To obtain the predictive relevance of the model, a blindfold test was run to compute Q^2 values. As a whole, the model determines an adequate fit and high predictive relevance as the Q^2 values are higher than zero which is presented in Table 9.

Table 9: Result of Predictive Relevance

Endogenous Variables	CCR	CCC
Employee Work Motivation	0.095	0.442
Employee Productivity	0.090	0.380

CCC=Construct Cross-validated Communality, CCR=Construct Cross-validated Redundancy

Direct Effect (path coefficient) Analysis

According to Chin (1998), the bootstrapping procedure was undertaken to estimate *t* statistics and confidence intervals as PLS does not have any distribution assumption requirements. Table 10 presented the path's coefficient assessment results where all the proposed hypotheses were supported. The supported hypotheses are statistically significant at least at the level of 0.05 and consists of a path coefficient value (β) ranging from 0.166 to 0.264.

Table 10: Path Coefficient Result

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
EWM -> EP	0.219	0.222	0.064	3.444	0.001
Wages & Benefits -> EP	0.204	0.211	0.058	3.489	0.001
Wages & Benefits -> EWM	0.267	0.264	0.053	5.013	0.000
Welfare Facilities -> EP	0.172	0.166	0.056	3.045	0.002
Welfare Facilities -> EWM	0.261	0.263	0.054	4.844	0.000

Indirect Effect (mediation) Analysis

Mediating analysis was carried out to determine the employee's work motivation that mediates the relationship between wages and employee productivity and between welfare facilities and employee productivity. The mediation effect was confirmed to be statistically significant. The results of the mediation analysis are presented in Table 11, where both the mediating hypotheses were statistically significant and supported.

Table 11: Mediation Analysis Result

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Wages & Benefits -> EWM -> EP	0.059	0.058	0.019	3.007	0.003
Welfare Facilities -> EWM -> EP	0.057	0.058	0.019	2.935	0.003

Discussion of the Findings

The first hypothesis was the effect of wages on employee productivity (E.P.) in the garment sector of Bangladesh, which entailed the examination of the wage-employee productivity relationship. Based on the results, a statistically significant effect exists between the two constructs that are in a positive direction, indicating that wages positively effect on E.P. The obtained result is aligned with that reported by Ottersen (2016) who found a positive relationship between wages and employee productivity in various industries. The study's results show that when management adopts the position of providing sufficient wages (that fulfil their basic needs) to their employees, this increases their productivity. In addition, wages enhance the purchasing capabilities of a

healthy diet for the workers, which reduces malnutrition and ultimately reduces illness and absenteeism. It also provides social status and a feeling of financial security amongst the workers, which provides motivation and more devotion to job responsibilities. This outcome is consistent with other business management research which reported a direct positive relationship between wages and employee productivity (Garnero, 2018). Therefore, the idea of paying proper wages to employees became a primary driving force for the utmost efficacious businesses. Wages are indispensable for workers' productivity and shows a momentous function in work productivity and other actions (Mong et al., 2018). Thus, the employer with decent wage packages for workers will impact the wellbeing and desire of the workers to remain in the company. The argument is also reinforced by Maslow's "motivational theory". When the fulfilment of the fundamental necessities of the workers are satisfied, employees will be inclined to realise their contentment and choose to work hard to fulfil other exigent like rewards and social demands to self-actualisation within the organisation. This study has also reinforced the findings from previous research thatconfirms that there is an imperative relationship between wages and productivity (Astuti, 2014; Kossova et al., 2014).

The second research hypothesis proposed that welfare facilities have a significant positive relationship with E.P. The results obtained support the hypothesis that welfare facilities provided by the RMG industry of Bangladesh have a direct relationship with employee productivity. Most previous studies found a significant positive direct relationship between the two constructs, such as Asaneth et al. (2014). This study is a pioneering empirical study that contributes to the literature in light of minimising the research gap by examining welfare-employee productivity relationships in the RMG industry of Bangladesh. The findings of the present study provide evidence of a significant relationship between welfare facilities and employee productivity in this context.

The third hypothesis was that wages have a significant positive relationship with employee work motivation in the RMG sector of Bangladesh. Based on the results, a statistically significant effect exists between the two constructs in a positive direction, indicating that wages positively effects on employee work motivation. The above-obtained result is aligned with the previous study reported by Gelard & Rezaei (2016), who revealed a positive relationship between wages and EWM. The study result shows that when management adopts the approach of providing sufficient wages to their employees, it increases their motivation. This outcome is consistent with other business management research that reported a direct positive relationship between wage and employee work motivation (Sudiardhita et al., 2018). Wages are an extrinsic motivator which has been widely studied. Since it is labelled as an extrinsic factor, it is not perceived as causing motivation in the workplace (Herzberg & Snyderman, 1959). However, a recent study by Ren et al. (2017) found considerable confirmation that high payments directly affected employee productivity. According to Herzberg et al., (1968), wages are a hygiene factor which is considered an extrinsic motivational factor and, without it, workers become demotivated. This, in turn, reflects on the overall productivity of the worker. As Bangladeshi garment industry workers are impoverished, they are in a vulnerable situation. Therefore, the wage payment is the most significant financial support for them, which motivates them to work. If the workers receive fair or at least minimum wages, that can function as a great motivator.

The fourth hypothesis of the study proposed that welfare facilities having a significant positive effect on EWM. The current study found a statistically significant relationship between these two constructs. This outcome was consistent with other business management research which reported that there was a direct positive relationship between welfare facilities and EWM (Odeku & Odeku,

2015). The findings of the present study evidenced a significant relationship between welfare facilities and EWM. This finding was also supported by another similar study carried out by Mendis (2016), where the researcher remarked that welfare facilities had a positive relationship with work motivation. The findings are in line with that of Muruu et al. (2016), which found that a positive relationship existed between welfare facilities and EWM. This finding is also in line with the argument of Manzini & Gwandure (2014), which stated that EWM is enhanced when the employee welfare facilities are increased.

The fifth research hypothesis was related to the impact of work motivation on employee productivity. This proposed hypothesis was supported through statistical analysis. The findings indicated that employee work motivation positively effected on employee productivity. This outcome was consistent with other business management research that reported a direct positive relationship between employee work motivation and employee productivity (Abusharbeh & Nazzal, 2018; Abdi Mohamud et al., 2017; Sharma & Sharma, 2017). This finding was also in line with the argument of Shahzadi et al. (2014) which stated that employee productivity was enhanced when the employee's work motivation was increased.

The sixth research hypothesis of the present study was related to the mediating role of EWM on the wage-employee productivity relationship. The proposed hypothesis was supported through statistical analysis. The findings indicated that employee work motivation positively mediates the relationship between wages and E.P. This result is consistent with other business management studies that reported an indirect positive relationship between wages and employee productivity via employee motivation (Gunawan et al., 2015; Evelyne et al., 2018). The purpose of this hypothesis was for determining the impact of wages on employee productivity. In addition, a study could test the role of employee work motivation as mediation in the impact of wages on productivity. Wages are a financial return received by employees as part of employment relationships (Fatma et al., 2017). Maslow's motivational theory mostly expounds that one's motivation for his needs is stratified and hierarchical. Wages are presumed to be the organisation's efforts to satisfy the fundamental needs of its workers. With the effort to satisfy these fundamental needs, it is expected to encourage worker motivation in terms of the fulfilment of higher-order needs, such as social needs, rewards and self-actualisation. In this case, when these basic needs are met, it will inspire workers to increase their productivity further. Based on these arguments it can be indicated that the provision of wages can affect E.P. As compared with other RMG producing countries, such as China, India, Sri Lanka, Vietnam and Thailand, their workers are more productive as compared to Bangladeshi workers and their workers' wages are also more. Thus, it can be concluded that wages have a direct effect on E.P. simultaneously as it has a significant indirect effect on employee productivity via the motivational process.

The seventh research hypothesis was related to the mediating role of EWM in the relationship between welfare facilities and worker productivity. The proposed hypothesis was supported through statistical analysis. This result is consistent with other business management studies that reported an indirect positive relationship between welfare facilities and employee productivity via employee work motivation (Gupta, 2017; Keitany, 2014; Naluwemba et al., 2016; Ayesha, 2017). The research of Ayesha (2017) once again found that welfare measures encompassed both positive and negative effects on workers' performances in the firm. The discussions with the workers from different RMG factory workers found that Bangladeshi RMG workers were not satisfied with the internal welfare facilities provided by the management.

Conclusion and Recommendations

The findings of the study are worthwhile for all stakeholders of the readymade garment sector in Bangladesh, ranging from various private organisations to the government. This study will encourage RMG producers to carry out steps for future preparedness in the competitive RMG market. The productivity development and sustainability of the Bangladesh RMG industry are the intended goals. The research suggested that employers should consider: (1) provide employees with sufficient wages on time to keep the employees motivated and productive and (2) provide adequate welfare facilities to uplift the productivity of employees and motivate the workers. Thus, practical implementation proposes that the provision of decent wage packages and adequate welfare facilities that can be strategised and put into practice will enhance productivity.

Theoretically, this study has contributed to the body of knowledge by uncovering the causal relationship between welfare facilities and wages and benefits as independent variables and employee productivity as the dependent variable. In addition, this study contributed to the existing literature from an employee work motivation perspective by highlighting the necessities of employee work motivation as a mediator between welfare facilities, wages and benefits, and employee productivity. Extensive literature reviews on welfare facilities and wages and benefits, employee work motivation and employee productivity will be also helpful for future researchers. Underpinning theory revealed a complex relationship amongst welfare facilities, wages and benefits, employee productivity and employee work motivation.

Besides theory testing, this study had fundamental objectives of generalising the findings for future researchers in a similar developing country context in the field of emerging manufacturing industries. Comprehensive literature reviews, viable methodological tools, key findings, recommendations, limitations and future study directives will also be helpful for future researchers. Furthermore, the study will be useful not only for practitioners and academics of Bangladesh but also globally in similar contexts.

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Appendix-A: Questionnaire

Questionnaire for the RMG Industry Employees of Bangladesh

The purpose of the questionnaire is to elicit the Bangladesh Garment Industry Employees' opinion on *"Effect of wages and welfare facilities on employee productivity: Mediating role of employee work motivation in readymade garment industry of Bangladesh"*. Please indicate your level of agreement or disagreement with each of the following statements. Thank you for your cooperation.

(The collected information is to be used only for academic research)

A. Demographic Information

1. Department: ……

2. Designation: ……..

3. Gender: a. Male b. Female

4. Marital status: a. Single b. Married c. Divorced

5. Age (years): a. Less than 18 b. 18 to 25 c. 26 to 35 d. Above 35

6. Level of education: a. Primary b. Secondary c. Intermediate d. Above Inter.

7. Experience (years) a. less than 3 b. 3 to 7 c. 8 to 12 d. Above 12

8. Gross wage (taka): a. less than 5000 b. 5000 to 8000 c. 8001 to 12000 d. above 12000

B. Please respond to each of the following statements with a score using the following options from 1 to 5 scales. A "1" represents a statement you strongly disagree, and a "5" represent you strongly agree. Only one answer needs to be circled for each statement.

Scale: Strongly Disagree = 1, Disagree = 2, Moderate = 3, Agree = 4, Strongly Agree = 5

No	Statement	Scale
	Wages & Benefits	
WB1	I am getting minimum wages as per Bangladesh labour law.	1 2 3 4 5
WB2	I receive overtime money as per double of a normal working hour.	1 2 3 4 5
WB3	My company provides me 40% of basic as house rent, medical allowances 250 takas, food allowance 300 takas and transport allowance 650 takas with basic wages as per law.	1 2 3 4 5

WB4	My company provides me gratuity, provident fund, insurance facility and retirement benefits as per law.	1 2 3 4 5
WB5	My company provides me regular annual increment.	1 2 3 4 5
	Welfare Facilities	
WF1	My company provides us with sufficient welfare facilities.	1 2 3 4 5
WF2	My company provides child care centre for the workers.	1 2 3 4 5
WF3	My company provides us with lunch and canteen facility.	1 2 3 4 5
WF4	My company provides us with transportation, and prayer room facility.	1 2 3 4 5
WF5	My company provides us with pure drinking water.	1 2 3 4 5
	EMPLOYEE WORK MOTIVATION	
EM1	My company provides me with adequate fringe benefits.	1 2 3 4 5
EM2	My company gives promotion as a regular practice according to the length of services.	1 2 3 4 5
EM3	My company arranges training programme to enhance my skills.	1 2 3 4 5
EM4	I am allowed to suggest to my supervisor and my supervisor guide me with detailed explanation.	1 2 3 4 5
EM5	My company always appreciate my good work and hard efforts.	1 2 3 4 5
EM6	My company provides me with a challenging and exciting job.	1 2 3 4 5
EM7	My job at the current position is permanent and secure.	1 2 3 4 5
	EMPLOYEE PRODUCTIVITY	
EP1	I usually complete my work on time.	1 2 3 4 5
EP2	I can find creative solutions to my work-related problems.	1 2 3 4 5
EP3	I am satisfied with the quantity of output that I produce.	1 2 3 4 5
EP4	The production target of my company is achievable for me.	1 2 3 4 5
EP5	I do my work without wastage of raw materials.	1 2 3 4 5
EP6	I prefer to work attentively without gossiping with others.	1 2 3 4 5
EP7	I am satisfied with the quality of my work output.	1 2 3 4 5
EP8	I can meet the technical requirements of the work process.	1 2 3 4 5