

Work Environment and Employee Motivation in the Banking Sector of Bangladesh: A Multi Dimensional Regression Analysis

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ABSTRACT

Purpose: This study examines how the work environment, satisfaction with it and frustrating job elements are linked with the motivation of bank employees in Bangladesh.

Method and sample: This cross sectional survey used data collected in 2018–2019 from 300 employees of 30 banks (250 private, 50 state owned). The questionnaire had 51 items on a 5-point scale. On this scale, 1 means strongly agree and 5 means strongly disagree. All items were coded in the same direction. The motivation score is an exploratory measure and has not been validated. Three multiple regression models were run in SPSS 15.0.

Findings: Model 1 (eight work environment items) was significant, $F(8, 291) = 6.26$, $p < .001$, and explained 14.7% of the variation in motivation ($f^2 = .17$). Sanitation ($\beta = .319$) and bonus and rewards ($\beta = .248$) were linked with higher motivation. Team harmony was significant in the opposite direction ($\beta = -.221$). Sensible working hours ($\beta = .158$) were also significant, but not after a Bonferroni adjustment. Model 2 (satisfaction) explained 6.5%. Only psychological satisfaction was significant, and its sign was opposite to the expected one ($\beta = -.208$). Model 3 (ten frustrating elements) explained 10.9%. Political stress and lack of personal development had opposite signs. Absence of creativity and irregular promotion had the expected signs, but these are tentative. Employees were most satisfied with the financial environment and least satisfied with the psychological environment.

Recommendations: Banks should keep workplaces clean, control long hours, run clear bonus systems and listen to their staff. The effects are small to medium, so these points are a starting point only.

Limitations: The data are cross sectional, self reported and from 2018–2019. The sample is mostly male and mostly from private banks. The models explain little, and unexpected signs need checking.

Keywords: work environment, employee motivation, job satisfaction, banking sector of Bangladesh

INTRODUCTION

Banks are service organisations. Their daily work depends on people. Bank employees receive customers, handle cash, process loans, prepare documents, check accounts, follow rules and use digital systems. Technology has changed banking, but employees are still very important. A bank cannot give good service with machines and software alone.

Employee motivation is therefore an important issue for banks. A motivated employee usually tries to complete work properly and on time. Such an employee may also help customers, solve problems and accept responsibility. When motivation falls, the bank may face poor service, absenteeism, staff turnover and low work effort.

Money is one factor in motivation, but it is not the only one. Employees also care about working conditions, relations with managers and colleagues, working hours, promotion, recognition, job security, training and personal development. The work environment is therefore an important part of the story.

The work environment has many parts. It includes the physical condition of the workplace, the psychological condition of employees, professional relationships and financial benefits. A clean office may make staff more comfortable. Reasonable hours may reduce pressure. Fair treatment may build trust. A clear bonus system may encourage effort. Good promotion chances may encourage staff to build their careers.

Earlier studies do not agree on how strongly the work environment is linked with employee attitudes. Some find a strong link with job satisfaction. Others find a weak link or none. Most studies in Bangladesh look at job satisfaction or performance. Few use motivation itself as the main outcome.

This study therefore focuses directly on motivation. It examines the parts of the work environment separately, instead of treating the environment as one block. It also studies how employees rate the present environment and which job elements they find frustrating. The data come from a survey carried out in 2018–2019. The study is cross sectional and exploratory. It can show which factors move together with motivation, but it cannot show cause and effect.

The study uses 300 employees from 30 banks in Bangladesh, including private and state owned banks. Three regression models are used. Model 1 tests specific work environment items. Model 2 tests satisfaction with the present environment. Model 3 tests frustrating job elements.

The main objective is to examine how the work environment is related to employee motivation in the banking sector of Bangladesh. The study asks three questions. First, is the work environment related to employee motivation? Second, which parts of the work environment are related to motivation? Third, which frustrating job factors are related to motivation?

The study is useful because bank managers need to know which workplace factors deserve attention. If simple factors such as sanitation, working hours and rewards are linked with motivation, banks may be able to act on them at a modest cost.

LITERATURE REVIEW

Key Concepts

The work environment is everything around an employee that can affect body and mind at work. Researchers use many definitions, and no single list of parts has general agreement. This study uses four parts. The physical part covers the office, sanitation, safety and working hours. The psychological part covers how people feel at work and how management treats them. The professional part covers fairness, teamwork, training and leadership. The financial part covers salary, bonus, benefits and pension. Four parts let us ask which part matters, instead of treating the environment as one block.

Motivation is what makes a person start working, keep working and try hard to do the job well. It is related to job satisfaction, but it is not the same thing. Satisfaction is a feeling about the job. A person can be satisfied and still put in little effort. A person can also be highly driven and still unhappy with parts of the job. Much recent Bangladeshi bank research measures satisfaction or performance, not motivation. We use that work as the nearest evidence and say so where it matters. The meta-analysis of Judge et al. (2001) found only a moderate link between job satisfaction and job performance. This is a reminder that the two ideas should not be treated as one.

Theoretical Foundations

The main frame of this study is Herzberg's two-factor theory (Herzberg et al., 1959). It says that some factors, such as pay, working conditions, company policy and supervision, only prevent unhappiness. Herzberg called

them hygiene factors. Other factors, such as achievement, recognition, responsibility and advancement, create real motivation. The theory has been tested and criticised for decades, and the sharp split does not hold in every setting. A recent study using data from an employer rating platform suggests that some hygiene factors, such as work conditions and work-life balance, may now act as motivators (Gimpl, 2024). This matters here. It means that items such as sanitation and working hours could be linked with motivation, and not only with the absence of complaints.

Maslow (1943) gives a second view. He argued that basic needs, such as safety and health, must be met before higher needs can drive behaviour. Clean toilets, safe water and reasonable hours belong to the basic level. If they are missing, people may find it hard to care about higher goals.

The job demands resources model explains how work shapes effort. Job demands, such as heavy workload and time pressure, wear people down. Job resources, such as support, autonomy and growth, motivate them (Bakker & Demerouti, 2007). Karasek (1979) made a related point earlier. He argued that strain is highest when demands are high and the worker has little control over the job. In this study, the work environment items can be seen as resources and the frustrating elements as demands.

Fairness is another strand. Adams (1965) argued that people compare what they put in with what they get out, and compare themselves with others. If the balance feels unfair, they change their effort. Colquitt et al. (2001) reviewed 25 years of research on organisational justice. They found that fair outcomes, fair procedures and fair treatment are linked with job attitudes and behaviour. This matters for equal treatment, promotion, transfer and posting, and bonus systems.

Two more theories deal with rewards. Vroom (1964) argued that people work harder when they believe effort will lead to a reward they value. Deci and Ryan (2000) separated inner motivation from motivation driven by outside rewards. They warned that rewards used mainly to control people can weaken their sense of choice. A meta-analysis of 108 samples and 71,438 employees found that pay for performance was positively linked with job performance (Chen et al., 2023). The same study found two routes. Pay for performance raised intrinsic motivation, but it also raised pressure, which pulled performance down. A performance-based reward can therefore help or hurt, depending on how employees experience it. Finally, Porter and Lawler (1968) argued that good performance leads to rewards, and rewards lead to satisfaction. They also warned that satisfaction does not always lead to more effort, because satisfied people can become comfortable. This warning is useful when we read the results for satisfaction with the present environment.

Work Motivation and Its Outcomes

There is strong global interest in why motivation matters. Nor et al. (2023) reviewed 34 articles published between 2018 and 2022. They found that work motivation was shaped by leadership, the work environment, training, task features, rewards, career path and commitment. Most of the studies they reviewed found that motivation had a significant effect on performance. Wang et al. (2024) reviewed studies that follow the same people over time to see which way the link between motivation and job performance runs. Nusraningrum et al. (2024) studied logistics employees in Jakarta and tested whether green work environments and engagement connect motivation to performance. These studies show that the work environment is a common factor in motivation. They also show that motivation is usually studied as a cause of performance, with less attention to what shapes motivation in the first place.

In banking, the evidence points the same way. In Bangladesh, Mahmud (2023) found that competence, leadership, compensation and motivation each had a positive effect on the performance of private commercial bank employees. M. S. Islam (2022) studied the links among performance, motivation and social life satisfaction in private commercial banks. Ali et al. (2022) looked at the factors behind bank employees' motivation and how motivation affects performance. Outside Bangladesh, Hassan (2023) studied employee motivation and performance in conventional banks in Pakistan. Rahaman et al. (2020) asked what motivates employees in service organisations in Bangladesh. Together, these studies suggest that motivation matters for what banks care about. They say less about which parts of the work environment drive it.

Research on Bangladeshi Banks

Recent Bangladeshi bank studies cover several outcomes. A large group looks at job satisfaction. Gupta et al. (2024) surveyed 320 private bank employees and found that the work environment was the strongest predictor of satisfaction, slightly ahead of green HR practices. Khatun (2023) also studied bank employees. She found that job pressure, supervision, job security, and training and development had significant effects on

satisfaction. In her study, compensation, benefits and the working environment did not. Hasan and Sadat (2023) examined the satisfaction of bankers at three banks and argued that satisfied employees help customer experience and bank success.

A second group looks at performance and engagement. Ahmed et al. (2025) tested how training and development and work-life balance affect job performance through engagement in private banks. Rahaman et al. (2021) examined the effect of work-life balance on employee performance in banking. A third group looks at stress and the wish to leave. N. Islam et al. (2019) studied 206 employees of ten private banks. They found that long hours with fast work, unclear goals, heavy workload and little flexibility were stress factors linked with the wish to quit. Rahaman and Uddin (2022) tested the effect of promotion and job training on job satisfaction in the small business sector in Bangladesh, which is not banking but is close in setting.

The pattern is clear. Satisfaction, performance and turnover are the usual outcomes. Motivation is the main outcome in only a few studies. Most studies use private banks. The two most direct tests of the work environment disagree: one finds it is the strongest predictor of satisfaction, and the other finds no significant effect.

Hypothesis Development

The Work Environment and Motivation (H1)

The evidence on the overall link is mixed. Gupta et al. (2024) support a strong effect, and Khatun (2023) does not. The two studies used different samples and measures, and both measured satisfaction, not motivation. Global reviews are more consistent. Nor et al. (2023) list the work environment among the factors that shape work motivation. Herzberg et al. (1959) and the job demands resources model (Bakker & Demerouti, 2007) both expect conditions at work to shape effort, although they disagree on how. Theory and evidence together lead us to expect a significant link.

H1: The work environment has a significant effect on the motivation of bank employees.

Physical Environment (H1a)

We test three physical items: sanitation, interior design and sensible working hours.

Sanitation: Horrevorts et al. (2018) combined a survey of office workers with two objective cleanliness checks. Higher measured cleanliness went with higher work satisfaction. Maslow (1943) places health and safety among the basic needs. Gimpl (2024) suggests that basic conditions can act as motivators in modern workplaces. We did not find a Bangladeshi bank study that tests sanitation on its own. We expect it to be linked with higher motivation.

Interior design: Oyedeji et al. (2025) reviewed research on physical work environments. They found that ambience, layout and aesthetics affect health, motivation and attitudes, and how work gets done. Interior design may therefore matter. But its effect may be weaker than that of basic hygiene, because design is a comfort and not a need. We expect a positive link, probably smaller than for sanitation.

Working hours: The health evidence is strong. A WHO and ILO study covering 194 countries reported that working 55 hours or more a week was linked with about a 35% higher risk of stroke and a 17% higher risk of dying from ischaemic heart disease, compared with working 35 to 40 hours (Pega et al., 2021). In Bangladeshi

banks, N. Islam et al. (2019) linked long hours, fast work and little flexibility with the wish to quit. Rahaman et al. (2021) and Ahmed et al. (2025) treat work-life balance as a driver of performance in private banks. Long hours also fit the demands side of the job demands resources model. We expect sensible hours to be linked with higher motivation.

H1a: The physical environment (interior design, sanitation, sensible working hours) has a significant positive effect on motivation.

Psychological Environment (H1b)

The psychological part is about how people feel at work and how managers treat them. Khatun (2023) found that supervision and job pressure had significant effects on satisfaction. Karasek (1979) argued that control over how work is done protects against strain. Herzberg et al. (1959) list supervision among the key workplace factors. We therefore expect managerial control over decisions to matter. The questionnaire had six psychological items (Table 3). Model 1, however, used only one of them: whether decisions are taken only by managers. This is a narrow measure of a wide idea, and the test of H1b must be read as limited. the Limitations section returns to this point.

H1b: The psychological environment (manager's decision) has a significant effect on motivation.

Professional Environment (H1c)

The professional part includes equal treatment and team harmony. Equity theory (Adams, 1965) predicts that unfair treatment lowers effort. Colquitt et al. (2001) link perceived fairness with job attitudes and behaviour. We did not find a recent Bangladeshi bank study that tests equal treatment on its own. We expect it to be linked with higher motivation.

Herzberg et al. (1959) list relations with colleagues among the hygiene factors, and Maslow (1943) includes social needs. Leadership and supervision, which shape team climate, were significant in Mahmud (2023) and Khatun (2023). But the effect of groups on individual effort is not always positive. Karau and Williams (1993) reviewed research on social loafing and found that people often put in less effort when they work in a group. A harmonious team may therefore not raise every member's motivation. We expect a positive link, but with less confidence than for the other items.

H1c: The professional environment (equal treatment, team harmony) has a significant positive effect on motivation.

Financial Environment (H1d)

The financial part includes salary and bonus and rewards. Herzberg et al. (1959) call basic pay a hygiene factor. It can remove complaints but does not create motivation. Khatun (2023) found that compensation and benefits did not significantly affect overall satisfaction. Mahmud (2023) found that compensation had a positive effect on performance. The evidence is mixed.

For bonus and rewards, Vroom (1964) predicts that rewards raise effort when people see a clear link between effort and reward. Adams (1965) adds that rewards must feel fair. Chen et al. (2023) found that pay for performance raised intrinsic motivation but could also raise pressure. Deci and Ryan (2000) warn that rewards used to control people can reduce their sense of choice. We therefore expect bonus and rewards to matter more than salary, provided the system is seen as clear and fair.

H1d: The financial environment (salary, bonus and rewards) has a significant positive effect on motivation.

Satisfaction with the Present Environment (H2)

H2 asks a different question from H1. It does not ask what could motivate people. It asks how people rate the

environment they have now, and whether those ratings are linked with motivation. Gupta et al. (2024) found that the work environment predicts satisfaction. Hasan and Sadat (2023) argue that satisfied bankers serve customers better. Dooty et al. (2015) compared satisfaction in conventional and Islami banks. Overall satisfaction was almost the same in the two types.

Theory gives mixed signals. Herzberg et al. (1959) say that satisfaction with hygiene factors does not create motivation. Judge et al. (2001) found only a moderate link between satisfaction and performance. Porter and Lawler (1968) say that satisfaction often follows good performance and rewards, and that satisfied people can become comfortable and push less. We therefore expect a link, but a weak one, and its sign may not be simple.

H2: Satisfaction with the present work environment (physical, psychological, professional, financial and overall) has a significant effect on motivation.

Frustrating Elements (H3)

Banking work has features that can wear people down. We group the ten frustrating elements into four themes.

Workload, stress and hours. The job demands resources model says that heavy demands drain energy (Bakker & Demerouti, 2007). N. Islam et al. (2019) found that long hours, fast work, unclear goals and heavy workload were stress factors linked with the wish to quit. Khatun (2023) found that job pressure affected satisfaction. Chen et al. (2023) found that pay-linked pressure could pull performance down. We expect heavy work, long duty hours and target pressure to be linked with lower motivation.

Risk and job security. Khatun (2023) found that job security mattered for satisfaction. Maslow (1943) puts safety among the basic needs. Banking carries operational and financial risk. We expect risk in the job and fear of losing the job to be linked with lower motivation.

Promotion, transfer and posting. Herzberg et al. (1959) list advancement among the motivators. Adams (1965) and Colquitt et al. (2001) link perceived unfairness with weaker attitudes and effort. Rahaman and Uddin (2022) examined the effect of promotion and job training on job satisfaction in Bangladesh. We expect irregular promotion and indiscriminate transfer and posting to be linked with lower motivation.

Growth, creativity and political pressure. Herzberg et al. (1959) list the work itself and the chance of growth among the motivators, and the job demands resources model treats growth as a resource. Khatun (2023) found that training and development mattered for satisfaction. We expect monotony, absence of creativity and lack of personal development to be linked with lower motivation. We did not find a recent study that links political pressure with the motivation of bank employees, so we have no firm expectation for that item.

H3: Frustrating elements in the job (risk, stress, political pressure, fear of job loss, target pressure, monotony, long duty hours, transfer and posting, irregular promotion and lack of personal development) have a significant effect on motivation.

Public and Private Banks

Only a few studies compare bank types, and the results are not strong. Maryam (2014) compared how employees of state owned and private banks in Bangladesh see the work environment and found no big difference. Dooty et al. (2015) compared conventional and Islami banks and found almost the same overall satisfaction, although conventional banks scored higher on job satisfaction and communication. Most other recent studies used private banks only (N. Islam et al., 2019; M. S. Islam, 2022; Ahmed et al., 2025). Our sample has both bank types, but our models treat all employees together. We therefore do not test whether the results differ between the two.

Research Gap and Contribution

The studies above help, but they leave gaps. This statement is based on the studies we found, and a full

systematic search may find more.

First, most recent Bangladeshi bank studies measure job satisfaction or job performance, not motivation (Khatun, 2023; Gupta et al., 2024; Mahmud, 2023; Hasan & Sadat, 2023; Ahmed et al., 2025; Rahaman et al., 2021). Second, many treat the work environment as a single variable, so it is hard to see which part matters. Third, the most direct tests disagree. Gupta et al. (2024) find a strong effect and Khatun (2023) finds none. Fourth, practical items such as sanitation, working hours, team harmony, equal treatment, salary and bonus are rarely tested together in one model. Fifth, few studies ask how employees rate the present environment and how that rating is linked with motivation. Sixth, frustrating job elements such as political pressure, irregular promotion and transfer are seldom tested with motivation as the outcome. Seventh, private banks dominate recent work, and the few studies that compare bank types are small (Maryam, 2014; Dooty et al., 2015). Finally, evidence on the physical environment comes mostly from outside banking or outside Bangladesh (Horrevorts et al., 2018; Oyedele et al., 2025; Pega et al., 2021).

This study contributes in four ways. It uses motivation as the outcome. It splits the work environment into four parts and tests eight items together in one model. It adds a model for satisfaction with the present environment and a model for ten frustrating elements. And it uses 300 employees from both private and state owned banks, collected across 60 branches. These contributions are limited by the exploratory motivation measure and the age of the data, which are discussed in the Limitations section.

CONCEPTUAL FRAMEWORK

Figure 1 shows how the three sets of predictors link with motivation. Each set is tested in its own regression model, and all three models use the same outcome, the total motivation score. The link from motivation to bank outcomes is shown only through employee opinions (Table 6). It is not tested in a model.

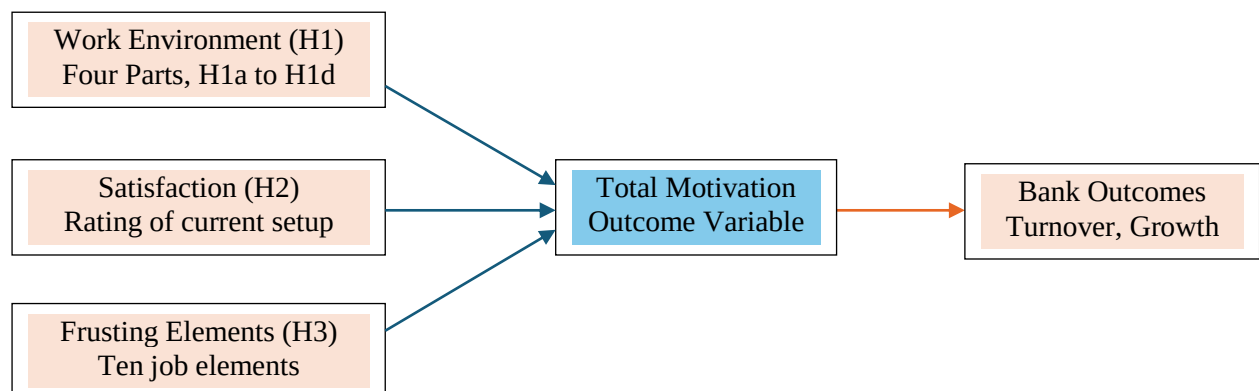


Figure 1. Conceptual framework

METHODOLOGY

Design

This is a quantitative, cross sectional survey of bank employees in Bangladesh. The questionnaires were sent between November and December 2018. Responses were collected between January 2019 and November 2019. The data are therefore from 2018–2019, before the COVID-19 period. The results describe that period and may not describe banks today.

Sampling and Response

We drew a sample of 30 banks, 25 private and 5 state owned. We used stratified random sampling with bank type as the strata. We chose two branches from each bank, which gave 60 branches. We chose five employees

from each branch. This gave 300 planned respondents: 250 from private banks and 50 from state owned banks.

In the first round, 255 questionnaires were returned and 250 were usable. Measured against the 300 planned respondents, this is a return rate of 85.0% and a usable rate of 83.3%. Five returned questionnaires were dropped: two were half filled, one was blank and two were not filled in by the chosen person. We then sent 50 more questionnaires to other randomly chosen employees and collected all of them. This gave 300 usable responses. Because 50 respondents were added in this way, the final sample is not a strict random sample of the first-round selection. We could not compare early and late respondents, or respondents and non-respondents, so non response bias could not be tested. The Limitations section treats this as a limitation.

Questionnaire, Coding and Measurement

The questionnaire had 51 questions on a 5-point Likert scale. On this scale, 1 means strongly agree and 5 means strongly disagree. A lower score therefore means stronger agreement. All items, including the motivation items, were entered in this same direction, and no item was reverse coded. Because the predictors and the outcome share one direction, the sign of a regression coefficient can be read directly. Table 1 shows the coding direction of each group of variables and how to read the signs.

Table 1. Coding direction of the variables and how to read the signs

Variable group	Number of items	A lower score means	How to read the coefficient
Total motivation score (outcome in all models)	Motivation statements	Stronger agreement with the motivation statements, that is, higher motivation	Not applicable (outcome)
Work environment items (Model 1)	8	Stronger agreement that the item motivates	Positive: more agreement with the item goes with higher motivation (expected). Negative: it goes with lower motivation (unexpected)
Satisfaction ratings (Model 2)	5	Higher satisfaction	Positive: more satisfaction goes with higher motivation (expected). Negative: it goes with lower motivation (unexpected)
Frustrating elements (Model 3)	10	Stronger agreement that the element is frustrating	Negative: more frustration goes with lower motivation (expected). Positive: it goes with higher motivation (unexpected)

Note: scale 1 = strongly agree to 5 = strongly disagree for every item. No item was reverse coded.

The total motivation score is the average of the motivation statements in the questionnaire. These statements were written for this study and tested with a pilot of 20 employees from four banks, of whom 15 replied. The questionnaire was changed after their feedback. The Cronbach's alpha for the questionnaire was 0.77, which is acceptable but not high (Cronbach, 1951). We did not run a factor analysis and we do not have item loadings, subscale reliabilities or item-total correlations for the motivation items. The motivation score is therefore an exploratory measure, and all claims in this paper are limited to match. Standard scales exist, such as the Work Extrinsic and Intrinsic Motivation Scale (Tremblay et al., 2009) and the Multidimensional Work Motivation Scale (Gagné et al., 2015). Future work should use one of them.

The questionnaire had 25 work environment items across the four parts (Table 3). Model 1 used eight of them. The psychological part had six items in the questionnaire but only one, manager's decision, was entered in Model 1. This is a weakness. A model with all six psychological items is needed before any firm statement can be made about the psychological environment.

Analysis

We used SPSS 15.0. First, we describe the sample and the ratings with means, standard deviations and percentages. Then we run three multiple regression models at the 5% level. In all three models the outcome is the total motivation score. Model 1 uses eight work environment items: interior design, sanitation, sensible working hour, manager's decision, equal treatment, team harmony, salary, and bonus and rewards.

Model 2 uses five satisfaction ratings: physical, psychological, professional, financial and overall. Model 3 uses ten frustrating elements: risk, stress of a huge amount of work, political stress, fear of losing the job, target pressure, monotony, long duty hours, transfer and posting, irregular promotion, and lack of personal development.

We checked multicollinearity with tolerance and the variance inflation factor (VIF) (Hair et al., 2010), and correlated errors with the Durbin-Watson test. We also report the following, all calculated from the SPSS output. First, 95% confidence intervals for each coefficient ($B \pm t \times \text{standard error}$). Second, adjusted R^2 and Cohen's f^2 as effect sizes for each model, where $f^2 = R^2 / (1 - R^2)$. Cohen (1988) describes f^2 values of about .02, .15 and .35 as small, medium and large.

Third, a check of multiple testing. We ran three models on the same data, so we show which significant results remain significant after a Bonferroni adjustment (Table 11). Perneger (1998) argues that such adjustments can be too strict, so we report both unadjusted and adjusted results and treat results that fail the adjustment as tentative.

The SPSS output we hold does not include normality plots, tests of linearity and equal variance, residual plots or influence statistics such as Cook's distance. These checks, and the other analyses suggested by the reviewers, need the raw data file. They are listed under Future research, and their absence is stated under Limitations.

Hypotheses

For each hypothesis, the null hypothesis (H_0) says there is no effect and the alternative (H_1) says there is an effect. If p is less than .05, we reject the null.

H_{01} : The work environment has no effect on motivation. **H_{11} :** The work environment has an effect on motivation.

H_{01a} : The physical environment has no effect on motivation. **H_{11a} :** The physical environment has a positive effect.

H_{01b} : The psychological environment has no effect on motivation. **H_{11b} :** The psychological environment has an effect.

H_{01c} : The professional environment has no effect on motivation. **H_{11c} :** The professional environment has a positive effect.

H_{01d} : The financial environment has no effect on motivation. **H_{11d} :** The financial environment has a positive effect.

H_{02} : Satisfaction with the present environment has no effect on motivation. **H_2 :** It has an effect.

H_{03} : Frustrating elements have no effect on motivation. **H_3 :** They have an effect, and we expect them to lower motivation.

RESULTS

Who answered

Table 2. Profile of respondents (N = 300)

Item	Group	Frequency	Percent
Bank type	Public	50	16.7
	Private	250	83.3
Department	Cash	106	35.3
	General banking	125	41.7
	Investment	69	23
Gender	Male	286	95.3
	Female	14	4.7
Age (years)	Below 25	6	2
	25 to 35	225	75
	35 to 45	66	22
	45 to 55	3	1
Marital status	Single	9	3
	Married	291	97
Education	M.Phil/PhD	4	1.3
	Graduate	13	4.3
	Post graduate	283	94.3
Experience	Below 5 years	3	1
	5 to 10 years	198	66
	10 to 15 years	95	31.7
	15 to 20 years	2	0.7
	20 years and above	2	0.7

Source: Author, 2018 - 2019.

Table 2 shows that most respondents are male, married, postgraduate, aged 25 to 35 and have 5 to 10 years of experience. Private banks make up 83.3% of the sample, and women make up only 4.7%. Only 14 women and 50 state owned bank employees took part. The results for these groups are therefore uncertain. We do not have the cross-tabulations of these characteristics (for example, gender within bank type), so we could not report them.

How employees rated each item

In Tables 3 to 6, a lower mean means stronger agreement.

Table 3. Work environment items as motivators (N = 300 each)

Dimension	Item	Mean	Std. Dev.
Physical	Interior design of the office	1.99	0.9694
	Sanitation system	1.957	0.9991
Physical	Sensible working hour	1.75	1.0154

	Chaos and shouting free set-up	2.33	1.1159
	Safety aids in the premises	2.03	0.8822
	Separate seating arrangement	2.223	1.1965
	Handy working material	2.33	1.1571
	Modern technology	2.347	1.267
	Recreational facilities	2.863	1.3896
Psychological	Manager's decision	3.503	1.0199
	Independence	2.953	1.3154
	Social dignity	2.343	1.3827
	Acknowledgement and admiration	3.01	1.3225
	Interpersonal relationship	2.663	1.2762
	Job security	2.41	1.391
Professional	Equal treatment	2.57	1.0874
	Team harmony	2.443	1.0973
	Tactful discipline	2.79	1.3261
	Formal dress	3.02	1.2102
Professional	Effective training	2.403	1.3165
	Charismatic leadership	2.2	1.2376
Financial	Lucrative salary	2.187	1.0466
	Bonus and reward	2.18	1.0699
	Fringe benefits	2.1	0.959
	Pension plan, insurance, PF	2.213	1.0253

Source: Author, 2018 - 2019.

Table 3 shows that employees agreed most with sensible working hours (1.750), sanitation (1.957) and interior design (1.990). The four financial items were close together, between 2.100 and 2.213. Manager's decision had the weakest agreement (3.503).

Table 4. Elements that frustrate employees (N = 300 each)

Element	Mean	Std. Dev.
Risks involved with tasks	1.707	0.8542
Stiff and longer duty hour	1.713	1.0399
Pressure of achieving target	1.827	0.894
Stress of massive work	2.13	1.3363
Indiscriminate transfer and posting	2.143	1.434
Lack of personal development	2.197	1.2872
Irregular promotion	2.243	1.266
Political stress and partisan influence	2.647	1.2887
Monotony or absence of creativity	2.773	1.3644
Fear of losing job	3.063	1.5516

Source: Author, 2018 - 2019.

The above table shows that Risks in the job, stiff and long duty hours, and pressure to achieve targets were the three biggest sources of frustration (means of 1.707, 1.713 and 1.827). Stress from heavy work (2.130), indiscriminate transfer and posting (2.143) and lack of personal development (2.197) also stood out. Fear of losing the job had the highest mean (3.063), which means the weakest agreement.

Table 5. Satisfaction with the existing environment, and which part employees put first

Item	Mean	Std. Dev.
Satisfaction with physical environment	2.51	1.2944
Satisfaction with psychological environment	3.597	1.2778
Satisfaction with professional environment	3.023	1.3122
Satisfaction with financial environment	2.02	0.8844
Overall satisfaction with existing environment	3.173	1.3225
Priority of physical environment over other environments	2.587	0.8898
Priority of psychological environment over other environments	2.8	1.0537
Priority of professional environment over other environments	2.78	1.0624
Priority of financial environment over other environments	2.763	1.0791

Source: Author, 2018 - 2019.

The above table 5 indicates that Satisfaction with the financial environment had the lowest mean (2.020), so it was the part employees were happiest with. Satisfaction with the psychological environment had the highest mean (3.597), so it was the part they were least happy with. The mean for overall satisfaction was 3.173, and for the professional environment it was 3.023. The four “priority” items (which part should come first as a motivator) have close means. On the same scale, agreement was strongest for the physical environment (2.587) and weakest for the psychological environment (2.800). The differences are small, so no part clearly comes first.

Table 6. What employees think motivation brings (N = 300 each)

Result	Mean	Std. Dev.
Absenteeism reduction	1.583	0.5924
Turnover reduction	1.587	0.5688
Greater profit through better service	1.503	0.6669
Sustainable growth	1.457	0.6705
Compliance and customer satisfaction	1.547	0.6075
Speed	1.623	0.5796
Achieving target	1.543	0.5796

Source: Author, 2018 - 2019.

Table 6 shows that employees believe motivated staff help the bank in all seven areas. All seven means are below 1.65, which means strong agreement. These are opinions only and are not tested in any model.

Fit of the three models

Table 7. Fit of the three regression models (outcome: total motivation score)

Statistic	Model 1: work environment	Model 2: satisfaction	Model 3: frustrating elements
Number of predictors	8	5	10
R	0.383	0.254	0.329
R ²	0.147	0.065	0.109
Adjusted R ²	0.123	0.049	0.078
Std. error of the estimate	0.36925	0.38464	0.37877
F	6.263	4.071	3.519
df	8, 291	5, 294	10, 289
Sig. (p)	< .001	0.001	< .001
Durbin-Watson	1.627	1.701	1.703
Cohen's f ²	.17 (medium)	.07 (small)	.12 (small to medium)

Source: Author, 2018 - 2019. f² calculated as R² / (1 - R²). This table replaces the earlier separate model summary and ANOVA tables.

The above table indicates that all three models are significant as a whole. They explain 14.7%, 6.5% and 10.9% of the variation in motivation. The adjusted values are lower (12.3%, 4.9% and 7.8%). Between 85% and 94% of the variation is therefore not explained by these models. The Durbin-Watson values are between 1.6 and 1.7, which gives no strong sign of correlated errors. In Model 1, the total variation in the motivation score has a standard deviation of about 0.39 (calculated from the ANOVA table: total sum of squares 46.509 with 299 degrees of freedom).

Test of H1: work environment items and motivation

Table 8. Model 1 Coefficients (Outcome: total motivation score)

Predictor	B	Std. Error	Beta	t	p	95% CI for B	VIF
Interior design (physical)	-0.105	0.056	-0.206	-1.899	0.059	-0.215, 0.005	4.02
Sanitation (physical)	0.126	0.038	0.319	3.312	0.001	0.051, 0.201	3.17
Sensible working hour (physical)	0.097	0.042	0.158	2.315	0.021	0.014, 0.180	1.6
Manager's decision (psychological)	0.002	0.024	0.004	0.069	0.945	-0.045, 0.049	1.26
Equal treatment (professional)	0.011	0.028	0.024	0.389	0.698	-0.044, 0.066	1.29
Team harmony (professional)	-0.080	0.027	-0.221	-2.990	0.003	-0.133, -0.027	1.86
Salary (financial)	0.043	0.035	0.108	1.226	0.221	-0.026, 0.112	2.66
Bonus and rewards (financial)	0.105	0.025	0.248	4.114	< .001	0.056, 0.154	1.24

Source: Author, 2018 - 2019. Confidence intervals calculated from B and its standard error. Tolerance (equal to 1/VIF) is left out. Constant: B = 1.088, SE = 0.125, t = 8.730, p < .001.

The table 8 shows that all VIF values are below 5, so multicollinearity is not a serious problem by the usual rules (Hair et al., 2010). Four predictors are significant. In plain words, a one-point move toward agreement on sanitation goes with a 0.126-point move toward higher motivation, all else equal. The 95% interval for this effect runs from 0.051 to 0.201. A small effect is therefore likely, but its size is uncertain.

H1a (physical). Sanitation ($\beta = .319$, $p = .001$) and sensible working hour ($\beta = .158$, $p = .021$) are significant and positive. Interior design is not significant at the 5% level ($p = .059$), and its sign is negative. Two of the three physical items are significant, so we accept H1a with caution, because sensible working hour does not remain significant after adjustment (Table 11).

H1b (psychological). Manager's decision has almost no effect ($\beta = .004$, $p = .945$). We do not accept H1b. This is a test with one item only.

H1c (professional). Equal treatment is not significant ($p = .698$). Team harmony is significant, but its sign is negative ($\beta = -.221$, $p = .003$), which is the opposite of what we expected. H1c is not supported as stated.

H1d (financial). Bonus and rewards is significant and positive ($\beta = .248$, $p < .001$). Salary is not significant ($p = .221$). H1d is partly supported.

Figure 2 shows the standardised coefficients of Model 1. Sanitation, bonus and rewards, and sensible working hour lead in the expected direction. Team harmony is significant but points the other way. The other four items are too small to separate from zero at the 5% level.

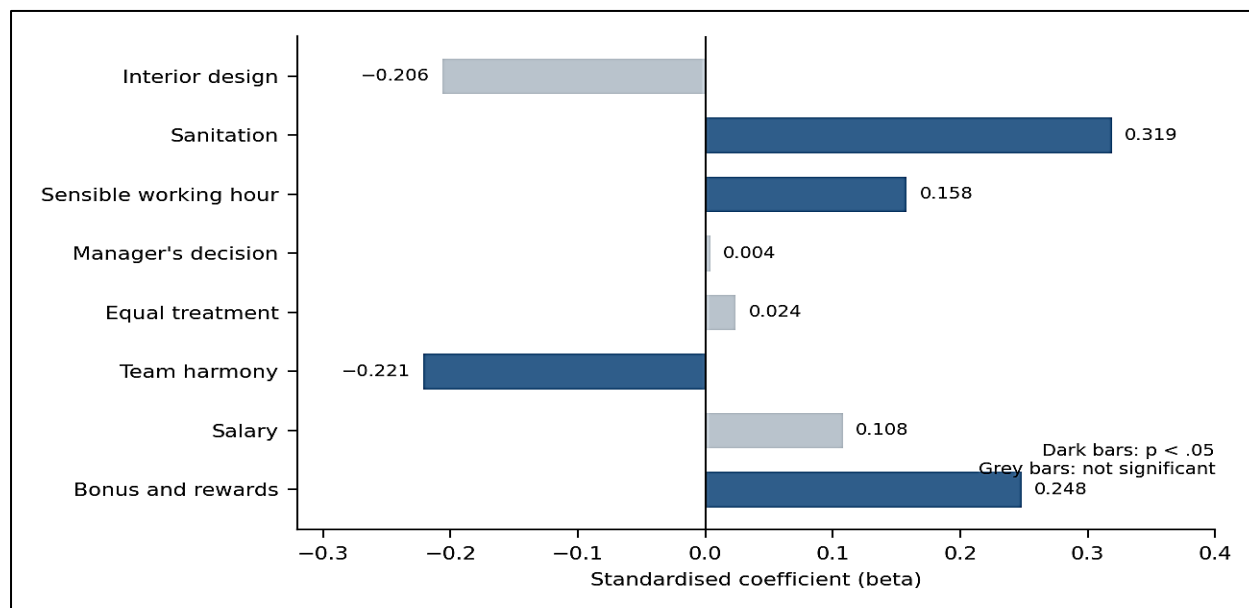


Figure 2. Standardised coefficients (beta) of Model 1. Values are taken from Table 8.

Test of H2: satisfaction with the existing environment and motivation

Table 9. Model 2 coefficients (outcome: total motivation score)

Predictor	B	Std. Error	Beta	t	p	95% CI for B	VIF
Satisfaction: physical	0.033	0.019	0.108	1.719	0.087	-0.004, 0.070	1.23
Satisfaction: psychological	-0.064	0.021	-0.208	-3.011	0.003	-0.105, -0.023	1.5
Satisfaction: professional	0.043	0.024	0.142	1.798	0.073	-0.004, 0.090	1.96

Satisfaction: financial	0.04	0.028	0.089	1.422	0.156	-0.015, 0.095	1.23
Satisfaction: overall	-0.011	0.022	-0.038	-0.519	0.604	-0.054, 0.032	1.64

Source: Author, 2018 - 2019. Constant: B = 1.526, SE = 0.086, t = 17.795, p < .001.

The model as a whole is significant, $F(5, 294) = 4.07$, $p = .001$. The five satisfaction ratings together are linked with motivation, so H2 is accepted at the model level. But the link is weak. The ratings explain only 6.5% of the variation (adjusted $R^2 = .049$, $f^2 = .07$).

At the item level, only one rating is significant: satisfaction with the psychological environment ($\beta = -.208$, $p = .003$). Its sign is negative, which is the opposite of the expected sign. This means that employees who were more satisfied with the psychological environment had lower motivation scores. Satisfaction with the physical environment ($p = .087$) and the professional environment ($p = .073$) are positive and close to the 5% line, but they do not cross it. Satisfaction with the financial environment ($p = .156$) and overall satisfaction ($p = .604$) are not significant. All VIF values are below 2. The descriptive results in Table 5 also matter for H2. The thesis first stated H2 as “the existing environment is quite satisfactory”. The ratings do not support that wording. Employees are satisfied with the financial side (65% agree) and the physical side (45.7% agree). But 47.3% are not satisfied with the psychological side, 43.7% are not satisfied with the professional side, and 41% do not call the overall environment excellent. Satisfaction is mixed, not high.

Test of H3: frustrating elements and motivation

Table 10. Model 3 Coefficients (outcome: total motivation score)

Predictor	B	Std. Error	Beta	t	p	95% CI for B	VIF
Risks involved with the job	0.042	0.04	0.092	1.049	0.295	-0.037, 0.121	2.49
Stress of huge amount of work	0.019	0.024	0.063	0.766	0.444	-0.028, 0.066	2.19
Political stress and partisan influence	0.07	0.022	0.229	3.135	0.002	0.027, 0.113	1.74
Fear of losing job	-0.034	0.019	-0.133	-1.739	0.083	-0.071, 0.003	1.89
Pressure of achieving target	0.046	0.034	0.105	1.362	0.174	-0.021, 0.113	1.91
Absence of creativity in tasks	-0.053	0.024	-0.183	-2.208	0.028	-0.100, -0.006	2.23
Stiff and longer duty hour	-0.010	0.029	-0.028	-0.354	0.724	-0.067, 0.047	1.96
Indiscriminate transfer and posting	0.014	0.025	0.051	0.564	0.573	-0.035, 0.063	2.6
Irregular promotion	-0.053	0.024	-0.169	-2.151	0.032	-0.100, -0.006	2
Lack of personal development	0.065	0.026	0.212	2.544	0.011	0.014, 0.116	2.26

Source: Author, 2018 - 2019. Constant: B = 1.384, SE = 0.084, t = 16.378, p < .001.

The model is significant, $F(10, 289) = 3.52$, $p < .001$. The ten frustrating elements together explain 10.9% of the variation in motivation (adjusted $R^2 = .078$, $f^2 = .12$). H3 is accepted at the model level. Four elements are significant. Two have the expected negative sign: absence of creativity ($\beta = -.183$, $p = .028$) and irregular promotion ($\beta = -.169$, $p = .032$). Two have the opposite sign: political stress and partisan influence ($\beta = .229$, $p = .002$) and lack of personal development ($\beta = .212$, $p = .011$). For these two, stronger frustration goes with higher motivation (see Table 1). The other six elements are not significant. Fear of losing the job comes close ($p = .083$). Stiff and longer duty hour is far from significant ($p = .724$), even though employees rated it as one of the top frustrations in Table 4. All VIF values are below 2.7.

Check for multiple testing

Table 11. Significant predictors and a Bonferroni check

Model	Predictor	p	Within-model threshold	Passes within model?	Passes $\alpha/3 = .017$?
1	Sanitation	0.001	.006 (.05 / 8)	Yes	Yes
1	Sensible working hour	0.021	.006 (.05 / 8)	No	No
1	Team harmony	0.003	.006 (.05 / 8)	Yes	Yes
1	Bonus and rewards	< .001	.006 (.05 / 8)	Yes	Yes
2	Satisfaction: psychological	0.003	.010 (.05 / 5)	Yes	Yes
3	Political stress	0.002	.005 (.05 / 10)	Yes	Yes
3	Absence of creativity	0.028	.005 (.05 / 10)	No	No
3	Irregular promotion	0.032	.005 (.05 / 10)	No	No
3	Lack of personal development	0.011	.005 (.05 / 10)	No	Yes

Note: the within model threshold divides .05 by the number of predictors in that model. The across model threshold divides .05 by the three models.

Sanitation, team harmony, bonus and rewards, satisfaction with the psychological environment and political stress pass both checks. Sensible working hour, absence of creativity and irregular promotion fail both, so we treat them as tentative. Lack of personal development passes only the milder check. We report the unadjusted results as the main results, as is usual in exploratory work, and we ask readers to give more weight to the results that pass the adjustment.

Summary of hypothesis tests

Table 12. Summary of hypothesis tests

Hypothesis	Evidence	Decision
H1: Work environment items affect motivation	$F = 6.26, p < .001, R^2 = .147, f^2 = .17$	Supported (small to medium effect)
H1a: Physical environment	Sanitation and working hour significant and positive; interior design not significant	Supported, with caution (working hour does not pass the adjustment)
H1b: Psychological environment	Manager's decision, $p = .945$ (one item only)	Not supported (limited test)
H1c: Professional environment	Equal treatment not significant; team harmony significant but negative	Not supported as stated
H1d: Financial environment	Bonus and rewards significant; salary not significant	Partly supported
H2: Satisfaction with existing environment affects motivation	$F = 4.07, p = .001, R^2 = .065$; only psychological satisfaction significant, with a negative sign	Weakly supported
H3: Frustrating elements affect motivation	$F = 3.52, p < .001, R^2 = .109$; four of ten significant, two with the expected sign and two with the opposite sign	Supported at model level, mixed at item level

Source: Author, 2018 - 2019.

FINDINGS

The work environment has a real but small link with motivation. In Model 1, the eight work environment items explained 14.7% of the variation in motivation, and the model was significant ($p < .001$). Model 2 explained 6.5% (Table 9) and Model 3 explained 10.9% (Table 10). All three were significant as a whole. The effect sizes were small to medium (f^2 between .07 and .17). Most of what decides motivation lies outside these models.

Among the eight work environment items, sanitation had the biggest effect ($\beta = .319$, $p = .001$). Bonus and rewards came second ($\beta = .248$, $p < .001$). Sensible working hour also had a significant positive effect ($\beta = .158$, $p = .021$), but this result does not pass the Bonferroni check. Employees backed this up in their ratings. Sensible working hour drew the strongest agreement among the physical items (mean 1.750). Team harmony was significant, but its sign was negative ($\beta = -.221$, $p = .003$), which is the opposite of what we expected. Four items had no significant effect: interior design ($p = .059$), manager's decision ($p = .945$), equal treatment ($p = .698$) and salary ($p = .221$).

Satisfaction was uneven. Employees were most satisfied with the financial environment (mean 2.020, with 65% agreeing) and least satisfied with the psychological environment (mean 3.597, with 47.3% disagreeing). In Model 2, only satisfaction with the psychological environment was significant, and it had a negative sign ($\beta = -.208$, $p = .003$).

Employees named risk in the job, long duty hours and target pressure as their strongest frustrations. In Model 3, however, other elements were linked with motivation. Absence of creativity ($\beta = -.183$) and irregular promotion ($\beta = -.169$) had the expected negative sign. Political stress ($\beta = .229$) and lack of personal development ($\beta = .212$) had the opposite sign.

Employees strongly believe that motivated staff help the bank. All seven results in Table 6 had means below 1.65, and about 97% agreed or strongly agreed with the statements on absenteeism, turnover, compliance and target achievement.

DISCUSSION

Overall Pattern and Size of the Effects

The results sit between two earlier studies. Gupta et al. (2024) found that the work environment had a strong effect on satisfaction, and Khatun (2023) found none. We find an effect on motivation, but a small one, and only for some items. Both earlier studies measured job satisfaction. We measured motivation, so the comparison is close but not exact.

The effect sizes need careful reading. Model 1 has a medium effect size ($f^2 = .17$), but it still leaves about 85% of the variation unexplained. Model 2 has a small effect size ($f^2 = .07$). In practical terms, a one-point move toward agreement on sanitation goes with a 0.126-point move toward higher motivation on a 5-point scale. The standard deviation of the motivation score is about 0.39. The move is therefore about one third of a standard deviation. This is a modest effect. The confidence intervals are wide (Table 8), so the true effect could be smaller or larger. These models do not give a full explanation of motivation. Personal needs, career stage, family, leadership and many other things that we did not measure are likely to matter.

Why Sanitation, Working Hours and Bonus and Rewards Were Significant

Sanitation was the strongest predictor. Maslow (1943) places health and safety among the basic needs, and a poor toilet or water supply is a daily reminder that a basic need is not met. Herzberg's theory would call sanitation a hygiene factor, which should prevent unhappiness but not create motivation (Herzberg et al., 1959). Our result fits the view of Gimpl (2024) that basic conditions can now act as motivators. It also fits the job demands resources model. A poor physical setting is a missing resource, and it takes energy away from the

work (Bakker & Demerouti, 2007). It agrees with Horrevorts et al. (2018), who found that cleaner offices went with higher satisfaction.

Sensible working hours were significant in Model 1. In the job demands resources model, long hours are a demand that wears people down (Bakker & Demerouti, 2007). The health evidence points the same way (Pega et al., 2021), and so does the link between long hours and the wish to quit in Bangladeshi banks (N. Islam et al., 2019). This result is tentative because it does not pass the Bonferroni check. In Model 3, stiff and longer duty hour was not significant, although employees named it as one of their top frustrations. One reason may be that almost everyone feels the same about it. When nearly all employees agree, an item cannot explain why some are more motivated than others. The two items are also worded differently, so they may not measure the same thing.

Bonus and rewards were significant. Equity theory says that people work harder when rewards feel fair (Adams, 1965). Expectancy theory says that rewards raise effort when people see a clear link between effort and reward (Vroom, 1964). A bonus is tied to results, so it fits both ideas better than a fixed salary. Self-determination theory adds a warning. A reward helps inner motivation when it gives people useful feedback on their work, but it can reduce motivation when it is used to control them (Deci & Ryan, 2000). Chen et al. (2023) found both effects in the same data. Our data cannot tell which route applies here.

Why Salary, Interior Design, Equal Treatment and Manager's Decision Were Not Significant

Salary. Herzberg et al. (1959) treat basic pay as a hygiene factor, so it may remove complaints without adding motivation. This agrees with Khatun (2023), who found no effect of compensation. There is also a statistical

reason. Salary and bonus items overlap (the VIF for salary is 2.66), so the shared part of their effect may show up under bonus and rewards. The result does not mean that salary is unimportant. It means that, in this sample, the bonus item added more than the salary item.

Interior design. Design is a comfort and not a basic need (Maslow, 1943), so its link with motivation may be weaker than that of sanitation. It also overlaps with sanitation (VIF = 4.02, tolerance = .249). Its p value (.059) is close to .05 and its confidence interval only just includes zero. Its negative sign may therefore be a side effect of this overlap. We do not read it as decoration lowering motivation.

Equal treatment. Equity and justice theories predict that unfair treatment lowers effort (Adams, 1965; Colquitt et al., 2001). Equal treatment was not significant in Model 1. The same idea may appear in Model 3, where irregular promotion, an unfair-treatment issue, was significant. The item was also a single statement, and "equal treatment" can mean fair treatment or identical treatment. Employees may read it in different ways, which weakens its link with the outcome.

Manager's decision. Karasek (1979) and self-determination theory both stress control over one's work. We measured this idea with one item that asks whether decisions are taken only by managers. This is too thin to show that the psychological environment does not matter. Employees rated the psychological environment as the weakest part (mean 3.597, Table 5), so it still deserves attention.

The Unexpected Signs

Four results ran in the opposite direction to what we expected. Team harmony had a negative sign in Model 1. Satisfaction with the psychological environment had a negative sign in Model 2. Political stress and lack of personal development had positive signs in Model 3.

We first looked at coding. All items were coded in the same direction (Table 1), so a coding mistake between the predictors and the outcome is not the likely cause. This must still be confirmed in the raw data file. Second, we looked at multicollinearity. All VIF values are below 5, so it is not severe. But a suppression effect can occur even with moderate VIF values. In that case, one predictor changes the sign of another. Interior design (VIF = 4.02) is the most likely case in Model 1. Checking this needs the simple correlations between

each predictor and motivation, which we do not have. Third, outliers and subgroup differences were not checked. We have no influence statistics, and we did not run separate models for private and state owned banks, for men and women, or for age and experience groups.

If the signs remain after these checks, theory offers some possible explanations. These are ideas for testing and not conclusions. For team harmony and psychological satisfaction, Porter and Lawler (1968) warn that comfortable people may push less. Karau and Williams (1993) found that people often put in less effort in groups. A very harmonious team may make it easy for individuals to relax. For political stress, some employees may link themselves with political groups to gain influence or protection. For them, political influence may be a route to promotion and may be linked with higher motivation. For lack of personal development, employees who feel they are not growing may try harder to move ahead. This fits the idea that unmet needs can drive effort (Maslow, 1943). We did not find recent Bangladeshi bank studies on political stress with motivation as the outcome, so we have nothing to compare with.

We report these results as found. They need a check against the raw data and new samples before anyone builds a policy on them.

Absence of Creativity and Irregular Promotion

Absence of creativity and irregular promotion had the expected negative signs. This fits Herzberg et al. (1959), who list the work itself and advancement as sources of motivation. It also fits Adams (1965), who links unfair promotion with lower effort. Both results fail the Bonferroni check, so they are tentative.

Across the three models, the same message appears. Basic conditions (a clean workplace, reasonable hours and a fair bonus) are linked with motivation. Interesting work and fair promotion may matter too. A large part of what decides motivation is outside these models.

RECOMMENDATIONS

The findings suggest that employee motivation depends partly on basic workplace conditions and not only on costly or complex measures. The recommendations are for top management, human resource departments, branch heads and policy makers. They should be treated as a practical starting point, because the models explain only a small part of motivation and several results are tentative.

First, organisations should give priority to cleanliness and sanitation, which showed the strongest link with motivation. Every workplace should provide clean toilets, safe drinking water and a regular cleaning schedule. Managers should inspect these facilities each month and ask employees for feedback. The cost is modest and improvements can be made quickly. Policy makers should set clear minimum standards for workplace sanitation and make sure employers follow them.

Second, working hours should be kept reasonable. Employees named long duty hours as one of their main frustrations, and sensible working hours were linked with higher motivation in Model 1. Management should watch late sitting, spread peak-time work among more staff and allow flexible hours where the job permits. Policy makers should make sure that working-hour rules are followed in practice.

Third, the bonus and reward system should be clear and fair. Bonus and rewards were significantly linked with motivation, while salary was not. This does not mean that salary is unimportant. It suggests that a salary rise alone is unlikely to raise motivation. Employers should publish the bonus rules, link them to real effort and results, and pay on time.

Fourth, organisations should offer interesting work and a clear path to promotion. Employees who found their work lacking in creativity, or who found promotion irregular, reported lower motivation. These two results are tentative. Management should rotate tasks, give small independent projects and publish promotion rules with timelines. Transfer and posting should follow clear and predictable rules.

Fifth, management should listen to its employees. Employees were least satisfied with the psychological side of work, such as the way they are treated and their part in decisions. Since this area was measured with one item in the model, the data are not enough to decide specific actions. Organisations should hold a short and honest staff survey on this subject and act on the results. Targets should be realistic, and employees in high-risk roles should receive support.

Finally, caution is needed with the unexpected results. Team harmony, psychological satisfaction, political stress and lack of personal development showed links opposite to what was expected. Organisations should not cut team-building or training programmes, or fund them heavily, on the basis of these results alone. Organisations are advised to measure motivation every year with the same questions, so that they can see whether their changes work.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

Conclusion

This study looked at how the work environment, satisfaction with it, and frustrating job elements are linked with the motivation of bank employees in Bangladesh. All three regression models were significant, but all three explained only a small share of motivation, between 6.5% and 14.7% (Table 7). Sanitation and bonus and rewards were the clearest results. Sensible working hour was also significant, but it did not pass the adjustment for multiple testing. Several items that many people expect to matter did not, namely interior design, manager's decision, equal treatment and salary. Absence of creativity and irregular promotion were linked with lower motivation, as expected, but these results are tentative. Team harmony, psychological satisfaction, political stress and lack of personal development ran in the opposite direction and remain unexplained. Employees are happy with the financial side and unhappy with the psychological side. The practical message is to start with the basics: keep workplaces clean, keep hours reasonable and run fair bonus systems. Then offer interesting work and a clear path to promotion, and listen to what employees say. The results come from an exploratory measure of motivation and from data collected in 2018–2019, so they should be used with care. We accept H1 and H3 at the model level, accept H2 only weakly, and accept only part of the sub-hypotheses.

Limitations

This study has several limits that readers and decision makers should keep in mind.

Measurement of motivation. The total motivation score comes from agreement statements built for this study and tested in a pilot with 20 employees. It is not a standard scale. We have no factor analysis, item loadings, subscale reliabilities or item-total correlations. The overall Cronbach's alpha of 0.77 is acceptable but not high. The score is an exploratory measure, and our claims are limited to match.

Coding. All items are on one scale direction (1 = strongly agree), and no item was reverse coded. This is explained in Table 1. Readers can therefore read the signs directly. The coding should be confirmed in the raw data file when the models are re-run.

Measurement of the predictors. The psychological part was represented by one item in Model 1, although the questionnaire had six psychological items. The test of H1b is therefore weak. Model 1 also used only eight of the 25 work environment items.

Data age. The data were collected in 2018 and 2019. Banking has changed since then. Digital services have grown, remote and hybrid work became more common during and after COVID-19, and work pressures have changed. The results may be different today. They should be read as a picture of Bangladeshi banks in 2018–2019. New data are needed to update them.

Sample and response. The sample is small for the whole sector (30 banks and 300 employees) and may not cover every region. It is unbalanced: 95.3% male, 83.3% from private banks, and only 50 state owned bank

employees and 14 women. The first-round usable rate was 83.3% of the planned sample, and 50 extra respondents were added later. We could not test non response bias. We also do not have cross-tabulations of respondent characteristics. A larger and more balanced sample would improve the findings.

Design. The data are cross sectional and self reported, so we can show that two things move together but not that one causes the other. Employees may answer to please, or may not fully understand a term such as motivation. We did not check answers against records such as absence or turnover.

Regression checks. We report tolerance, VIF, the Durbin-Watson test, confidence intervals, effect sizes and a Bonferroni check. We do not have normality, linearity, equal-variance, residual and influence checks, and we could not test for suppression or outliers. We did not run hierarchical regression or structural equation models, and we did not test mediation or moderation by bank type, gender or experience. We ran three models on the same data, which raises the chance that a result appears by luck. Several signs came out opposite to the expected ones. Finally, the models treat all 300 employees together, so they do not show whether state owned and private bank employees differ.

Future research

Future studies can fix many of these limits. The first need is new data from a larger and more balanced sample, with more state owned banks, more women, more regions and both junior and senior staff. Motivation should be measured with a validated scale, such as the Work Extrinsic and Intrinsic Motivation Scale (Tremblay et al., 2009) or the Multidimensional Work Motivation Scale (Gagné et al., 2015), and the factor structure and reliabilities should be reported. Each part of the work environment should be measured with several items or a full scale. This includes the psychological part, which should use all its items and not one.

With the raw data, the following steps should be taken. Re-run the models with all items in the same direction, and confirm the coding. Check the unexpected signs for suppression and outliers, using simple correlations and influence statistics. Check normality, linearity, equal variance and independence of residuals. Run the models separately for private and state owned banks, for men and women, and for different age and experience groups. Use hierarchical regression to see what each group of predictors adds. Use structural equation modelling to test mediation and moderation, for example whether bank type, gender or experience changes the links, and to test the link from motivation to bank outcomes.

Following the same employees over time would show whether changing the environment changes motivation. Interviews and focus groups would help explain the results that ran in the opposite direction, such as team harmony and political stress, and would let staff name factors that we missed. Linking survey answers to real bank records, such as absence, turnover and performance, would remove the problem of self reported opinions. The study can also be repeated in other industries and in other countries such as India and Pakistan. Finally, new work should look at digital banking and the period after COVID-19, to see how remote work and new pressures change the picture.

REFERENCES

1. Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental socialpsychology* (Vol. 2, pp. 267–299). Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60108-2](https://doi.org/10.1016/S0065-2601(08)60108-2)
2. Ahmed, S., Ashrafi, D. M., Ahmed, R., Ahmed, E., & Azim, M. (2025). How employee engagement mediates the training and development and work–life balance towards job performance of the private banks? *The TQM Journal*, 37(7), 2015–2040. <https://doi.org/10.1108/TQM-10-2023-0316>
3. Ali, A. R. S. I., Haque, A. A., & Nahar, S. (2022). Influencing factors of bank employees' motivation and its impact on employees' performance. *American International Journal of Multidisciplinary Scientific Research*, 13(1), 21–27. <https://doi.org/10.46281/aijmsr.v13i1.1835>
4. Bakker, A. B., & Demerouti, E. (2007). The job demands resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>

5. Chen, Y., Zhang, Z., Zhou, J., Liu, C., Zhang, X., & Yu, T. (2023). A cognitive evaluation and equity-based perspective of pay for performance on job performance: A meta-analysis and path model. *Frontiers in Psychology*, 13, Article 1039375. <https://doi.org/10.3389/fpsyg.2022.1039375>
6. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
7. Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86(3), 425–445. <https://doi.org/10.1037/0021-9010.86.3.425>
8. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
9. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
10. Dooty, E. N., Fahim, S. T., & Sultana, I. (2015). A comparative analysis on employee satisfaction: A study on conventional and Islami banks of Bangladesh. *Romanian Economic and Business Review*, 10(1), 99–105.
11. Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspley, A. K., ... Westbye, C. (2015). The Multidimensional Work Motivation Scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology*, 24(2), 178–196. <https://doi.org/10.1080/1359432X.2013.877892>
12. Gimpl, N. (2024). Herzberg's motivation-hygiene theory revisited in the information age [Working paper]. SSRN. <https://doi.org/10.2139/ssrn.5061822>
13. Gupta, A., Rahaman, M. A., Taru, R. D., Ali, I., & Ali, M. J. (2024). Are you satisfied? Tracing antecedents of bank employees' job satisfaction in their job role. *Banks and Bank Systems*, 19(1), 24–33. [https://doi.org/10.21511/bbs.19\(1\).2024.03](https://doi.org/10.21511/bbs.19(1).2024.03)
14. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.
15. Hasan, T., & Sadat, A. (2023). Dynamics of job satisfaction in Bangladesh's banking sector: Implications for employee engagement and organizational success. *Journal of Business and Economic Options*, 6(4), 36–42.
16. Hassan, M. S. (2023). Dynamics of employee motivation and employee performance in banking sector. *Business Review*, 18(2), 32–50. <https://doi.org/10.54784/1990-6587.1580>
17. Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work* (2nd ed.). John Wiley & Sons.
18. Horrevorts, M., Van Ophem, J., & Terpstra, P. (2018). Impact of cleanliness on the productivity of employees. *Facilities*, 36(9–10), 442–459. <https://doi.org/10.1108/F-02-2017-0018>
19. Islam, M. S. (2022). Exploring the correlation among employee performance, motivation, and social life satisfaction: A study on private commercial banks in Bangladesh. *International Journal of Scientific Research and Management*, 10(12), 4351–4359. <https://doi.org/10.18535/ijssrm/v10i12.em010>
20. Islam, N., Zeesan, E. A., Chakraborty, D., Rahman, M. N., Ahmed, S. I. U., Nower, N., & Nazrul, T. (2019). Relationship between job stress and the turnover intention of private sector bank employees in Bangladesh. *International Business Research*, 12(8), 133–141. <https://doi.org/10.5539/ibr.v12n8p133>
21. Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407. <https://doi.org/10.1037/0033-2909.127.3.376>
22. Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285–308. <https://doi.org/10.2307/2392498>
23. Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65(4), 681–706. <https://doi.org/10.1037/0022-3514.65.4.681>
24. Khatun, M. S. (2023). Determinants of employee job satisfaction: An empirical analysis of the banking sector in Bangladesh. *International Journal of Science and Business*, 25(1), 229–244. <https://doi.org/10.58970/IJSB.2197>

25. Mahmud, M. A. L. (2023). Factors influencing employee performance and their impact on productivity: A study of commercial banks in Bangladesh. *Banks and Bank Systems*, 18(2), 127–136. [https://doi.org/10.21511/bbs.18\(2\).2023.11](https://doi.org/10.21511/bbs.18(2).2023.11)
26. Maryam, H. (2014). An analysis of the perception of the components of work environment: A study between state owned and private banks of Bangladesh. *Journal of Applied Management and Investments*, 3(1), 25–32.
27. Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
28. Nor, M. F., Eliyana, A., & Sridadi, A. R. (2023). Systematic literature review: The importance of work motivation to employee performance. *Jurnal Pamator*, 16(1), 34–48. <https://doi.org/10.21107/pamator.v16i1.19060>
29. Nusraningrum, D., Rahmawati, A., Wider, W., Jiang, L., & Udang, L. N. (2024). Enhancing employee performance through motivation: The mediating roles of green work environments and engagement in Jakarta's logistics sector. *Frontiers in Sociology*, 9, Article 1392229. <https://doi.org/10.3389/fsoc.2024.1392229>
30. Oyedeji, B. A., Ko, Y. H., & Lee, S. (2025). Physical work environments: An integrative review and agenda for future research. *Journal of Management*, 51(6), 2589–2626. <https://doi.org/10.1177/01492063251315703>
31. Pega, F., Náfrádi, B., Momen, N. C., Ujita, Y., Streicher, K. N., Prüss-Üstün, A. M., Descatha, A., Driscoll, T., Fischer, F. M., Godderis, L., Kiiver, H. M., Li, J., Magnusson Hanson, L. L., Rugulies, R., Sørensen, K., Woodruff, T. J., & Technical Advisory Group. (2021). Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000–2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury. *Environment International*, 154, Article 106595. <https://doi.org/10.1016/j.envint.2021.106595>
32. Perneger, T. V. (1998). What's wrong with Bonferroni adjustments. *BMJ*, 316(7139), 1236–1238. <https://doi.org/10.1136/bmj.316.7139.1236>
33. Porter, L. W., & Lawler, E. E. (1968). Managerial attitudes and performance. R. D. Irwin.
34. Rahaman, M., Lalin, S. A., Chowdhury, S., & Hasan, S. (2021). Exploring the effects of work life balance on employee performance in the banking industry. *International Journal of Management, Accounting and Economics*, 8(12), 882–901. <https://doi.org/10.5281/zenodo.6391325>
35. Rahaman, M. A., Ali, M. J., Wafik, H. M. A., Mamoon, Z. R., & Islam, M. M. (2020). What factors do motivate employees at the workplace? Evidence from service organizations. *The Journal of Asian Finance, Economics and Business*, 7(12), 515–521. <https://doi.org/10.13106/jafeb.2020.vol7.no12.515>
36. Rahaman, M. A., & Uddin, M. S. (2022). The effect of promotion and job training on job satisfaction of employees: An empirical study of the SME sector in Bangladesh. *The Journal of Asian Finance, Economics and Business*, 9(2), 255–260. <https://doi.org/10.13106/jafeb.2022.vol9.no2.0255>
37. Tremblay, M. A., Blanchard, C. M., Taylor, S., Pelletier, L. G., & Villeneuve, M. (2009). Work Extrinsic and Intrinsic Motivation Scale: Its value for organizational psychology research. *Canadian Journal of Behavioural Science*, 41(4), 213–226. <https://doi.org/10.1037/a0015167>
38. Vroom, V. H. (1964). *Work and motivation*. John Wiley & Sons.
39. Wang, N., Luan, Y., & Ma, R. (2024). Detecting causal relationships between work motivation and job performance: A meta-analytic review of cross-lagged studies. *Humanities and Social Sciences Communications*, 11, Article 595. <https://doi.org/10.1057/s41599-024-03038-w>