

# An Empirical Analysis of the Determinants of Employee Motivation and Productivity Using Ordinal Regression Modeling

<sup>1</sup>Mustafakulova Sitara  <sup>1</sup>Asrorova Amirabonu  <sup>1</sup>Sabina Nurimukhammatova  <sup>2</sup>Ibragimov Khusen 

<sup>1</sup>MS student, Silk Road International University of Tourism and Cultural Heritage

<sup>2</sup>Department of Tourism, Silk Road International University of Tourism and Cultural Heritage

## ABSTRACT

Employee productivity is one of the vital factors that can influence not only organizational success and profitability but also overall employee satisfaction. This survey displays essential elements to enhance workplace productivity, focusing on leadership, work-life balance, motivation, salary, culture, affiliation, and reward. Additionally, flexible work arrangements and engagements are identified as significant factors of performance. The observation was explored in Uzbekistan to analyze the productivity of workers and crucial drivers of efficiency. To gain data, surveys were shared with employees and analyzed in the Statistical Package for Social Sciences (SPSS) program. The result illustrates that the reward system, training opportunities, and democratic leadership significantly impact employee performance and satisfaction. Moreover, organizations should implement strategies that focus on perks, practices, and democratic leadership to improve the productivity of employees.

## ARTICLE HISTORY

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## Introduction

Employee motivation and productivity are essential factors that can influence organizational success and improvement in a company among its competitors. This survey provides some strategies to increase workplace encouragement by examining both intrinsic and extrinsic productivity elements. In the fiercely competitive and quickly changing business world of today, companies are realizing more and more how critical motivated workers are to long-term success. Employee motivation is a strategic necessity that has a direct impact on organizational performance, productivity, and innovation. It is not just a human resource issue. Motivated workers are more likely to be involved, dedicated, and willing to go above and beyond, all of which contribute to increased operational effectiveness and company expansion. For many companies, creating a work environment that continuously encourages drive and excellence is still a difficult task. The main factors influencing employee motivation are examined in this article, along with practical tactics that businesses may use to boost morale and output.

Improving the productivity of workers in Bangladesh's ready-made garment (RMG) factories has long been a difficult task, and it has become even more urgent in the wake of the COVID-19 outbreak. The motivation and productivity of RMG employees during the pandemic are examined in this study about welfare facilities and HRM

procedures. The study, which makes use of sophisticated statistical techniques, validates all of the hypotheses put out and shows that welfare benefits and HRM procedures have a significant impact on employee motivation and output. Additionally, it was shown that the relationship between these characteristics and productivity was somewhat mediated by employee motivation. Convergent validity, discriminant validity, composite reliability, strong model fit indices, and confirmatory factor analysis (CFA) and structural equation modeling (SEM) all contributed to the validity and reliability of the study findings. These results provide proper management and theoretical insights, giving stakeholders, managers, factory owners, and legislators evidence-based recommendations to improve employee motivation and maximize productivity in the RMG industry (Fm Asikullah et al., 2024).

Factors focus attention on promoting a supportive culture, providing precise goal mechanisms, offering professional development opportunities, and building strong teams among other competitors. Moreover, the role of leadership also plays an essential role in creating an authorized work environment, motivating open contact with leaders, and increasing a sense of motivation to work. Empirical findings recommend that identifying organizational aims with employees' desires and creating golden opportunities for innovation and independence significantly increase productivity.

This study highlights the importance of a holistic approach that integrates motivational statements with practical interventions to boost employee job satisfaction and performance. Employee motivation has a significant and positive impact on productivity and organizational commitment.

### Literature Review

Employee productivity depends on both monetary and nonmonetary strategies. Some researchers did surveys about how to improve employee productivity and motivation. Tulu (2016) examined the influence of employee motivation on productivity, which was conducted at the commercial bank of Ethiopia in Ambo, using qualitative research. Data were gathered through a self-administered questionnaire, which was distributed to all employees of the branch. The findings show that the bank used both monetary and non-monetary incentives to enhance employee productivity. While financial incentives include cash rewards, periodic salary enhancement, and loans for the construction of houses, non-monetary strategies are flexible work scheduling, helping employees to be professional in their field by organizing short and long-term training and education, promotion, and recognition of outstanding work performance. However, existing strategies are not sufficient for getting the desired outcome, and finding more successful approaches to boost the productivity of employees is recommended.

According to Putri & Hartono (2023), to develop employee motivation, companies must create strategies to boost employee motivation. The most crucial strategy is providing some training, practice, or creating a convenient work environment for workers. To make the survey, researchers used quantitative data to collect results from 99 sample workers. The outcome of this survey illustrates that leadership methods can have a positive impact on increasing motivation among employees. Encouragement at work can mediate good communication between training and employee performance. Additionally, as "putting one's heart and soul into one's work." Emotional engagement is essential in the workplace. The study examined how work involvement can boost productivity in Erbil's private businesses, using a quantitative research approach. The researcher excluded identifying information from the published findings to ensure anonymity as requested by participants. Out of 110 questionnaires distributed to private enterprises in Kurdistan, 97 were completed and returned (Candra & Amanda, 2023).

### Data and Methodology

The study is conducted in Uzbekistan to find the ways of increasing employee productivity and identify key

influencing elements. Data were collected through structured surveys distributed to employees, resulting in 54 completed responses. Both primary and secondary data were used to conduct the study. The primary data was analyzed using the Statistical Package for Social Sciences (SPSS) program applying "Descriptive analysis" to summarize main features of answers, ordinal regression to find the significance of factors in enhancing productivity of employees, and examined relationship between variables which helps to assess deeper insight into how various factors impact by using cross-tabulations. Organizational records and written resources were used as secondary data.

Ordinal logistic regression has been employed to estimate employee productivity. The theoretical model is specified as follows:

$$\text{Employee Productivity (EP)} = \beta + \alpha^0 \text{Age} + \alpha^1 \text{Reward} + \alpha^2 \text{Time} + \alpha^3 \text{Worktype} + \alpha^4 \text{Site(Place)} + \alpha^5 \text{Engagement} + \alpha^6 \text{WorkLifeBalance} + \alpha^7 \text{Encorage\_emp} + \alpha^8 \text{Salary} + \alpha^9 \text{Culture} + \alpha^{10} \text{Affiliation} + \alpha^{11} \text{MainFactor} + \alpha^{12} \text{LeadershipStyle} + \alpha^{13} \text{DailyHabit} + \varepsilon$$

**Employee Productivity (EP)** is a dependent variable;  $\alpha^0 \dots \alpha^{13}$  are the coefficients of the independent variables;  $\varepsilon$  indicates error term and  $\beta$  is the constant.

The independent variables were selected based on existing literature and include both demographic (e.g., age), organizational (e.g., reward system, work type, leadership style), and behavioral factors (e.g., daily habits, motivation, work-life balance).

### Results

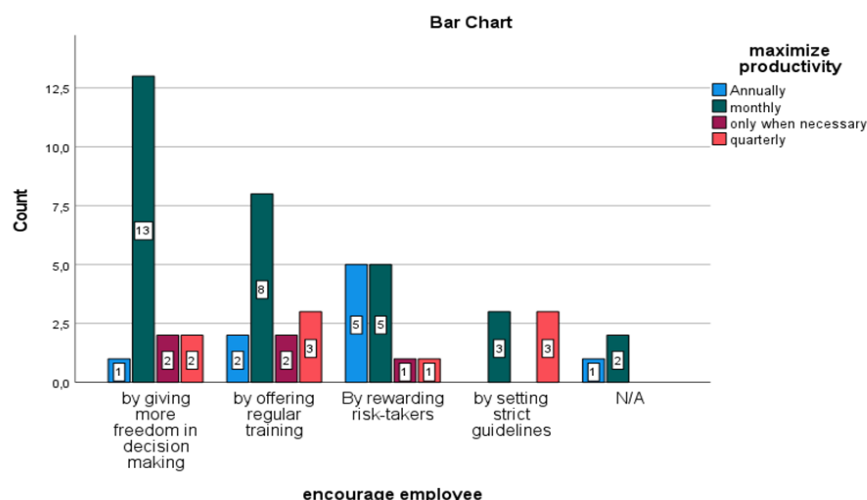
Demographic analysis of respondents is included for those who took part in the study, which helps to understand the background of respondents, using descriptive analysis. The study analyzed the demographic characteristics of the respondents. Of the total 54 respondents, 23 were male and 31 were female. In terms of age distribution, eight respondents (14.81%) were between the ages of 15 and 19, 35 respondents (64.81%) were between 20 and 30, 8 respondents (14.81%) were between 31 and 40, and only three respondents (5.5%) were aged 40 or older.

Regarding the type of work, 17 respondents (31.48%) were married, while 11 respondents (20.37%) were distant employees. Sixteen respondents (29.63%) worked partly, and seven respondents (12.9%) said it did not matter.

Table 1: Descriptive statistics		Frequencies	Percentage
Gender	Male	23	42.59 %
	Female	31	57.41 %
Age	15-19	8	14.81 %
	20-30	35	64.81 %
	31-40	8	14.81 %
	40+	3	5.5 %
Work type	Office	17	31.48 %
	Distance	11	20.37 %
	Partly offline	16	29.63 %
	Does not matter	7	12.9 %

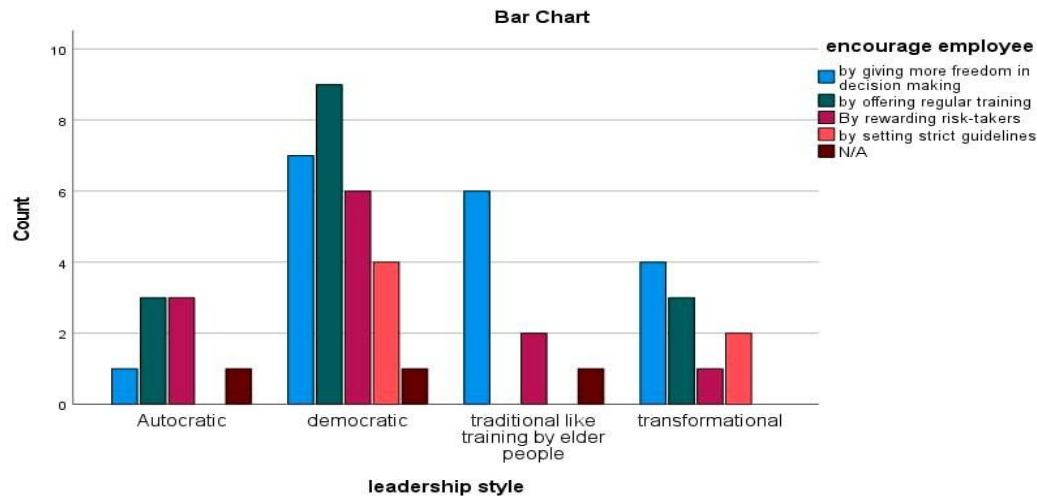
The bar chart gives information about how encouraging employee impact maximizes productivity. The bar chart examines four strategies for maximizing productivity: By Giving More Freedom in Decision Making, By Offering Regular Training, By Rewarding Risk Takers, and By Setting Strict Guidelines, analyzed across four timeframes: Annually, Monthly, Only When Necessary, and

Quarterly. It provides insights into how employees or managers prefer these strategies to be implemented over time. Among the strategies, giving More Freedom in Decision Making received the highest number of responses, with 13 participants favoring implementation every month, making it the most preferred option.



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This graph illustrates data about how different leadership styles encourage employees through specific methods. The authority methods analyzed are autocratic, democratic, traditional, and transformational, with styles like giving more freedom in decision-making, offering regular training, rewarding risk-takers, and setting strict guidelines. Firstly, an autocratic leadership style seems to have minimal reliance on offering freedom in decision-making or rewarding risk-takers. However, strict guidelines dominate, though this method appears less popular compared to others. The most predominant management style is freedom in decision-making and offering regular training. The reason is that making independent decisions and

ongoing practice can improve employees' skills and encourage them to achieve their goals. The third, the traditional leadership style, focuses mainly on structured training by elders, in this method giving more freedom to workers, and is the best way to improve their job satisfaction. The last leadership style is transformational, which focuses on rewarding innovation or risk-taking, while also offering consistent freedom in decision-making. These findings suggest that the most effective leadership style is a democratizing style by providing regular training during work hours.

Table 2: Ordinal Logistic Regression Result

Threshold	Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
[employeeengagement = Creating opportunities for professional development]	41.927	2.804	223.519	1	0.000	36.430	47.423
[employeeengagement = more team building activities]	43.007	2.827	231.406	1	0.000	37.466	48.549
[employeeengagement = Offering higher wages]	45.868	2.941	243.237	1	0.000	40.104	51.633
[important factor = flexible working hours]	3.901	1.405	7.706	1	0.006	1.147	6.655
[important factor = High salary]	1.907	1.097	3.021	1	0.082	-0.243	4.057
[important factor = job security]	3.476	1.363	6.505	1	0.011	0.805	6.147
[Reward = equity in the company]	-2.397	1.523	2.478	1	0.115	-5.381	0.588

[Reward = Monthly performance awards]	-1.630	0.886	3.383	1	0.066	-3.366	0.107
[Reward = peer recognition program]	-1.646	1.221	1.819	1	0.177	-4.038	0.746
[Reward = peer recognition programs]	0.365	2.838	0.017	1	0.898	-5.198	5.927
[Reward = Yearly bonus]	0a	.	.	.	.	.	.
[workenvironment = access to snacks and beverages]	2.422	1.296	3.493	1	0.062	-0.118	4.962
[workenvironment = clear communication of goal]	-0.007	1.054	0.000	1	0.995	-2.073	2.060
Source: Estimated in SPSS							

The table displays parameter estimates from a statistical model with the help of ordinal logistic regression. Ordinal Logistic Regression shows that creating opportunities for professional development is statistically significant at the 0.01 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between creating opportunities and employee engagement. If companies create opportunities for professional development, it leads to increased engagement of workers by 41%.

More team-building activities are statistically significant at the 0.01 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between team-building activities and employee engagement. If companies build more team activities, it leads to an increase in the engagement of workers by 43%. Offering higher wages is statistically significant at the 0.01 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between providing higher wages and employee engagement. If companies offer higher salaries, it leads to an increase in the engagement of workers by 45%. The next is that Ordinal Logistic Regression shows that flexible working hours are statistically significant at the 0.1 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between flexible working hours and employee engagement. If companies create opportunities for flexible working, it leads to increased productivity of workers by 3.9%. High salary is statistically significant at the 0.1 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between high wages and employee engagement. If companies increase workers' pay, it leads to increased productivity of employees by 1.9%.

Job security is statistically significant at the 0.1 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between job security and employee productivity. If companies maintain job security, it leads to increased productivity of employees by 3.4%. Monthly performance awards are statistically significant at the 0.1 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a negative relationship between monthly performance awards and employee engagement. If companies increase monthly performance awards, it leads to a decrease in productivity of employees by 1.6%.

Access to snacks and beverages is statistically significant at the 0.1 level, and we accept  $H_a$  and reject  $H_o$ , meaning that there is a positive relationship between access to snacks and drinks and employee engagement. If companies increase access to snacks and drinks, it leads to an increase in the productivity of employees by 2.4%. However, equity in the company, peer regression program, and clear communication goals are statistically insignificant, meaning that we accept  $H_o$  and reject  $H_a$ , and there is no relationship between these variables and employee engagement.

## Conclusions

This article explores the determinants of how to boost employee motivation and productivity in Uzbekistan using traditional gravity models and panel data analyses of 54 employees for the period 2016-2023. This study is the first empirical research exploring the determinants of how to improve employee engagement and job satisfaction. Data were collected through structured surveys distributed to employees, resulting in 54 completed responses. Both primary and secondary data were used to conduct the study. The primary data was analyzed using the Statistical Package for Social Sciences (SPSS) program, applying

“Descriptive analyses” through cross-tabulations and “Ordinal regression” to find the significance of variables to increase the productivity of employees. The findings highlight that collaboration of leadership, work-life balance, motivation, salary, culture, affiliation, and reward systems have a significant influence on employee productivity and satisfaction as well. While promoting work-life balance prevents burnout and fosters employee well-being, effective leadership helps to create an atmosphere conducive to positivity and productivity. One key factor that impacts employee satisfaction and performance is rewards. Moreover, an influential workplace culture and a sense of relationship contribute to higher commitment and team building between employees. By addressing these factors comprehensively, organizations can generate an environment that not only drives productivity but also enhances employee morale and maintenance.

Employees who have meaningful tasks to do are more likely to be engaged and devoted. As a result, further research is needed to properly understand the impact of meaningful employment on all factors of organizational benefits. For this reason, companies or organizations should focus on present professional career development, flexible working hours, job security, and creating opportunities for the future. In addition, providing ongoing practice, team-building activities, regular meetings with leaders, and high salaries can significantly increase engagement and morale among workers. Flexible work arrangements, for instance, hybrid timetables, help workers focus on a healthy work-life balance, while clear professional steps help them to boost motivation for their work. Moreover, adopting a management style that emphasizes collaboration, employee involvement in decision-making, and recognition of new methods can establish a positive work environment. On the other hand, from this survey, managers can directly benefit. The reason is that they can find information about how to regulate their workers to work better for their companies or organizations. Finally, customers and stakeholders may benefit indirectly, as an encouraging workforce delivers higher-quality products and services, enhancing customer enjoyment and strengthening the company’s reputation in the market or among competitors.

While these methods can effectively boost employee productivity, there are some limitations to take into consideration. To begin with, the effectiveness of these policies may differ between industries, organizational culture, or individual employee preferences can influence the common goal of a company. Second, implementing changes like flexible working hours, training programs, and high salaries might be challenging, especially for small organizations and companies. Also, overdependence on

awards or perks may lead to short-term productivity rather than fostering inherent engagement. Lastly, leaders or companies may struggle to find up-to-date data about how to improve employee motivation, or have no access to the funding and latest data.

## Reference

1. Asikullah, F., Chakma, P., Hossain, S. F. A., & Hussain, K. (2024). Evaluating employee motivation and productivity in Bangladesh during the post-pandemic era. *Management and Labour Studies*, 49(3), 456-476.
2. Tulu, D. T. (2016). Boosting Employee Productivity; Impact of Employee Motivation on Productivity: Case study on Commercial Bank of Ethiopia in Ambo. *American Journal of Business and Management*, 5(3), 2016.
3. Candra, P., & Amanda, A. P. (2023). Analysis of Recruitment, Performance Evaluation, and Career Planning to Support Employee Performance. *Greenation International Journal of Law and Social Sciences*, 1(2), 81-90.
4. Putri, D. K. A., & Hartono, A. (2023). Training, Leadership Style, and Work Environment on Employee Performance: The Role of Work Motivation. *Jurnal Fokus Manajemen Bisnis*, 13(2), 197-214.