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Work Culture, Job Satisfaction, and Their Influence on Drivers: A JASP-Based Regression Study

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Abstract

This study used JASP software to process the primary data and conduct analyses using structural equation modeling (SEM), partial least squares (PLS), and bootstrap significance testing. The results showed a strong positive total effect between job satisfaction as the dependent variable and work culture as the independent variable JASP, an acronym for Jeffrey's amazing statistical program, honors the Bayesian statistician Sir Harold Jeffreys. The study examined key statistical components, including model fit, BIC, AIC, fit indices, additional fit measures, R^2 values, factor loadings, factor variance, regression coefficients, weights, and residual variance. Data collection followed a quantitative survey approach at metro mass transit, focusing on 138 full-time drivers, with a final sample of 102 determined through Krejcie and Morgan's (1970) formula. A deductive approach was implemented using probability sampling. The hypothesis was confirmed. This research seeks to enhance the educational utility of JASP by providing comparative statistical analyses for improved clarity and differentiation.

Keywords: Work culture, JASP, Job satisfaction, SEM, PLS, Bootstrap

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Introduction

This study originates from extensive research on work culture and job satisfaction as the central themes. It adopts Shahin's [1] model, incorporating two key variables [2, 3]. The primary aim is to analyze and propose effective strategies based on the results [4, 5]. Additionally, the research seeks to evaluate the total effect of the relationship between job satisfaction as a dependent variable and work culture as an independent variable [6, 7]. The broader objective is to explore fundamental aspects of job satisfaction and work culture that contribute to sustaining metro mass transit (MMT) passenger services [8, 9]. Essentially, the study aims to identify key organizational actions that can enhance employee satisfaction [10, 11]. To achieve this, Shahin's [1] conceptual model is applied as a distinguishing factor, serving as a valuable contribution to the literature. A quantitative research approach is employed to critically assess the validity of the work culture framework concerning job satisfaction. Prior studies suggest that perceptions of organizational justice influence job attitudes, work culture, and overall satisfaction with the job [12]. Additionally, previous research has established both direct and indirect effects of work culture on job satisfaction [13].

Problem statement

In Ghana's economic landscape, multiple reports, theoretical insights, and empirical findings indicate recurring employee protests within organizations, primarily due to dissatisfaction with unpaid salaries and benefits. Many employees have expressed concerns about unfavorable working conditions and lack of adequate compensation. These grievances have, at

times, resulted in leadership changes, where the government has dismissed several chief executive officers (CEOs) due to allegations of financial mismanagement and unethical practices. The challenges facing MMT may stem from ineffective work culture practices. Previous studies have highlighted the complexity of job satisfaction as a motivator for employees, directly affecting productivity and overall organizational success [14]. According to Aziri [14], many business managers and researchers have yet to fully implement job satisfaction strategies effectively. Employees develop both positive and negative perceptions about their roles, influenced by their expectations, personal needs, and workplace experiences [15-17]. However, unmet expectations often lead to dissatisfaction, creating tensions between employers and employees.

Metro mass transport (MMT) limited

MMT Limited is a public transit service in Ghana, established to provide cost-effective and reliable transportation for commuters across rural and urban areas. The concept was introduced by former President John Agyekum Kufuor in 2001 and later formalized in 2003 with contributions from various financial stakeholders. These include the National Investment Bank, States Insurance Company (SIC), Ghana Oil Company, Social Security and National Insurance Trust, Prudential Bank Limited, and Agricultural Development Bank. Together, these institutions control 55% of MMT's shares, while the Ghanaian government retains a 45% stake. Operating under the motto "Moving the Nation," MMT has been serving the public since 2003 with services such as bus rapid transit, school transport, and general public bus operations.

Research questions

This study aims to explore the following key inquiries:
How does work culture impact job satisfaction?
What role does JASP play in processing and analyzing primary data related to work culture and job satisfaction?

Research objectives

To address these research questions, the study sets out to achieve the following goals:
To analyze the overall influence of work culture on job satisfaction.
To utilize JASP software in evaluating research data and contributing to knowledge advancement.

Hypothesis

H1: Work culture has a direct and positive influence on job satisfaction.

Literature review

Managing job satisfaction remains a significant challenge for today's business leaders and organizational managers [14]. According to Aziri [14], there is no universally accepted definition of job satisfaction, as different scholars interpret it using various perspectives. Cabanas *et al.* [18] described job satisfaction as a mix of psychological, physiological, and environmental factors that lead individuals to feel genuinely content with their jobs. Despite external influences, job satisfaction is an internal experience that shapes how employees perceive their roles. It consists of multiple factors that contribute to a sense of fulfillment [19].

Ihinmoyan [20] viewed job satisfaction as concerning an employee's responsibilities in the workplace, while Vroom emphasized that it reflects personal attitudes toward work at any given time. Mabaso and Dlamini [21] defined job satisfaction as the degree to which employees find their compensation and rewards fulfilling on an intrinsic level. Meanwhile, the management study guide [22] characterized work culture as an organizational concept that examines employees' attitudes, thought ideologies, processes, and core principles. It determines how workers engage with one another and function within the company.

Several studies suggest that job satisfaction plays a complex role in employee motivation, influencing both productivity and overall organizational effectiveness [14]. Aziri [14] further noted that many business leaders and scholars have yet to fully integrate job satisfaction strategies into their management practices. Employees develop either positive or negative attitudes toward their work, shaped by their expectations, needs, and workplace interactions [15-17].

Job dissatisfaction can lead to various negative consequences, such as absenteeism, diminished commitment, and increased workplace accidents [14]. Dewi [23] proposed three core dimensions of job satisfaction: emotional responses, exceeding expectations, and employee attitudes. According to Sinha *et al.* (2010), the rising interest in work culture among researchers and industry professionals is driven by two key factors. First, organizational performance is believed to depend on how well employees' values align with the company's strategic goals. Second, work culture is seen as an adaptable element that can be consciously shaped to meet employees' expectations.

Hypothesis development

Work culture and job satisfaction

Research by Prakoeswa *et al.* [24] demonstrated a strong and positive relationship between job satisfaction and work culture, particularly in the context of organizational commitment. Different levels of organizational engagement influence job satisfaction through cultural and work-related factors [13]. Additionally, Shahin [1] found that work culture positively impacts performance by enhancing job satisfaction. Based on these findings, the following hypothesis is proposed:

H1: Work culture has a direct and significant positive effect on job satisfaction.

Figures 1 and 2 illustrate the research framework and the conceptual/theoretical model.

H1: *Work culture has a positive significant effect as a direct relationship to job satisfaction.*

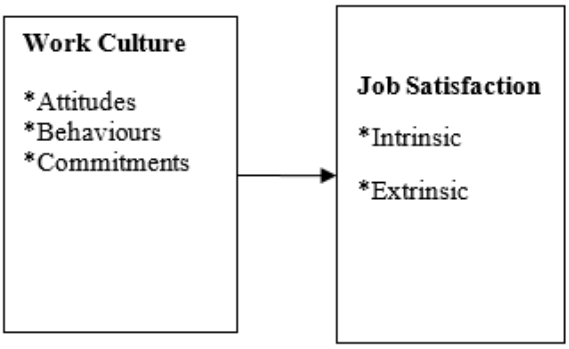

Figure 1. Research framework

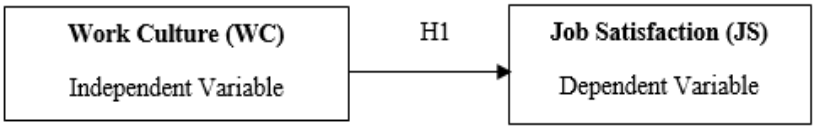

Figure 2. Conceptual/theoretical model

Materials and Methods

Research design

To analyze the correlation between job satisfaction and workplace culture, a quantitative research approach is adopted as the most suitable methodological framework for this study.

Quantitative research design technique

A quantitative research method is employed to convert observed problems into statistical data, enabling numerical analysis. This approach helps quantify perspectives, behaviors, and attitudes, making it possible to derive insights applicable to larger populations. The structured nature of quantitative data collection ensures that measurable results contribute to identifying trends and establishing factual conclusions. Unlike qualitative techniques, which focus on descriptive insights, quantitative methods emphasize objectivity, systematization, and formalized data gathering.

Various data collection techniques are available under this method, including structured surveys, online and paper questionnaires, telephone and face-to-face interviews, longitudinal studies, systematic observations, and online polls [25]. For this study, data was collected using a survey questionnaire.

Population and sampling

The research targets professional drivers employed by MMT Limited, a Ghanaian public transport service provider known for its slogan, “Moving the Nation.” MMT operates intercity, urban, and rural transport services to ensure affordability and accessibility for commuters. The total population of permanent drivers within the organization is 138, and based on the Kresjcie and Morgan (1970) formula, a sample size of 102 was selected for the study.

Data collection

Primary data was collected through a structured questionnaire, which was adapted from the author’s thesis for an in-depth analysis of total effects.

Measurement instruments

Job satisfaction scale

For assessing job satisfaction, this study utilizes the Minnesota Satisfaction Questionnaire (MSQ) developed by Agustiningsih *et al.* [26]. This tool distinguishes between intrinsic and extrinsic job factors, making it a suitable fit for the research. The MSQ has undergone extensive validation, with Falkenburg and Schyns (2007) reporting a Cronbach's alpha of 0.93 and 0.92 in separate organizational studies. Similarly, Elangovan (2001) found a Cronbach's alpha of 0.89, confirming its reliability. Research by Wahyuhadi *et al.* [12] on social bonding theory also reported a Cronbach's alpha of 0.89, while Udechukwu (2007) found a Cronbach's alpha of 0.88 in studies focused on correctional environments.

In a study of academic professionals, Wahyuhadi *et al*. [12] reported a Cronbach's alpha of 0.86932, further reinforcing the MSQ's reliability. Given its robustness, this instrument is well-suited for measuring job satisfaction in the study.

The intrinsic job satisfaction factors measured include independence, achievement, activity, variety, advancement, moral values, social services, creativity, authority, recognition, ability utilization, and responsibility. The extrinsic factors assessed include social status, compensation, company policies, human relations in supervision, technical supervision, security, working conditions, and co-worker relationships.

Work culture scale

The work culture assessment in this study is based on a questionnaire developed by Wahyuhadi *et al*. [12], which examines key elements such as behavior and commitment in organizational culture. This selection is based on the classification of affective commitment as an attitudinal factor, continuance commitment as a behavioral factor, and normative commitment as the core dimension of commitment theory. Many items from this scale have been adapted, a common practice in survey instrument design [27].

In terms of reliability, Wahyuhadi *et al*. [12] reported a Cronbach's alpha of 0.85 for affective commitment, while Agustiningsih *et al.* [26] found a Cronbach's alpha of 0.82 in a study on academic professionals. Agustiningsih *et al*. [26] further validated the instrument with a Cronbach's alpha of 0.89. Additional studies by Wahyuhadi *et al.* [12] measured supportive work culture factors with a Cronbach's alpha of 0.84, and their findings on social bonding theory reported Cronbach's alpha values of 0.77 and 0.79 [24].

For intelligence quotient (IQ) reliability, Prakoeswa *et al.* [24] recorded Cronbach's alpha values of 0.89, 0.84, and 0.72, indicating strong consistency in measurements. The questionnaire developed by Varmazyar *et al.* (2014) was also used, with modifications to suit this research.

To assess job satisfaction and work culture, a Likert scale was utilized, offering five response options per item. Data analysis was conducted using the JASP statistical software package to ensure precise statistical evaluation.

The JASP statistical tool serves as a modern alternative to SPSS and other statistical software, offering a user-friendly interface for both Bayesian and frequentist analysis. It is based on the principles outlined in Learning Statistics with Jamovi and Learning Statistics with R, works that were originally developed by Navarro *et al*. [28]. The version used in this study is JASP 0.17.1.0. Named after Sir Harold Jeffreys, a pioneer in Bayesian statistics, the software stands for Jeffrey's Amazing Statistical Program. It is an open-source application supported by the University of Amsterdam, making it freely accessible to researchers and data analysts worldwide [29].

To ensure the internal consistency of the research instruments, a reliability analysis was performed using JASP, focusing on Cronbach's Alpha coefficients. According to Hair *et al*. (2007), a Cronbach's Alpha value of 0.6 or higher signifies acceptable reliability, whereas scores below this threshold indicate that revisions may be necessary to improve the instrument's consistency.

Content validity was assessed to determine whether the questionnaire comprehensively covered the intended research constructs. Jackson (2011) emphasizes that a questionnaire must fully represent the behaviors or attributes it aims to measure. To ensure this, the questionnaire underwent a pre-testing phase followed by expert review, allowing for multiple revisions to enhance its precision and applicability for data collection.

In addition to content validity, construct validity was established using confirmatory factor analysis (CFA). Mabaso and Dlamini [21] suggest that CFA serves as a crucial step in verifying whether an instrument effectively measures the theoretical constructs it is designed to assess. Dewi [23] further explains that CFA is used to confirm the hypothesized factor structures across different variables and respondent groups. The validity of CFA models is determined by several goodness-of-fit indicators. Bakker *et al.* (2007) argue that a chi-square normalization (χ^2/df) value of 3.0 or lower represents a good model fit. Similarly, Browne and Cudeck (1993) suggest that a root mean square error of approximation (RMSEA) value of 0.08 or lower is considered acceptable. Bentler (1990) further asserts that a (CFI) score of at least 0.9 indicates a well-fitting model, while Hu and Bentler (1999) recommend that the root mean square residual (RMR) should not exceed 0.08 to ensure adequate model accuracy.

The collected survey data was analyzed using JASP to evaluate both reliability and validity. Given the quantitative nature of this study, data analysis involved both inferential and descriptive statistics. Descriptive statistics were used to summarize the key characteristics of the dataset, providing insights into central tendencies and distributions [23]. Inferential statistics, on the

other hand, allowed for the generalization of findings from the sample to the broader population, ensuring the study's conclusions were well-founded.

To assess whether the data followed a normal distribution, normality testing was conducted by analyzing skewness and kurtosis values. Skewness measures the symmetry of a distribution, while kurtosis evaluates its peakedness or flatness. Dewi (2019) states that data is considered normally distributed if skewness falls within the range of ± 1 and kurtosis remains between ± 3. A positive kurtosis value indicates a distribution that is more peaked than normal, whereas a negative kurtosis suggests a flatter distribution.

In terms of overall descriptive analysis, Dewi [23] describes it as a method used to summarize data through percentages, frequency distributions, and mean scores. This approach provides fundamental insights into the dataset, allowing for a clearer interpretation of the quantitative findings and aiding in the validation of the research results.

Inferential analysis

Pearson correlation

Pearson correlation is used to determine the strength and direction of the relationship between 2 variables, whether independent or dependent. In this research, Pearson correlation will examine the relationship between discipline, good governance, and compliance. The correlation coefficient can range from -1.00 to +1.00, with values closer to -1.00 or +1.00 indicating a strong relationship between the variables. Values close to 0 suggest a weak or no relationship. According to Jackson (2011), the strength of the correlation can be interpreted as follows: a coefficient between 0.91 to 1.00 indicates a very strong relationship, 0.71 to 0.90 suggests a high association, 0.41 to 0.70 indicates a moderate relationship, 0.21 to 0.40 signifies a weak but definite relationship, and 0.00 to 0.20 means a negligible or almost no relationship [23].

Regression analysis

Regression analysis, as described by Dewi [23], is a statistical method that explores the relationship between one dependent variable and multiple independent variables. This allows researchers to understand how several factors influence the outcome. In this study, multiple regression analysis will be employed to determine the impact of various independent variables on the dependent variable. Multiple regression coefficients (R^2) represent the proportion of variability in the dependent variable explained by the independent variables, with values ranging from 0.00 to +1.00.

Multiple regressions

Multiple regression analysis assesses the effect of various independent variables on a dependent variable, providing an estimation of how well these independent factors predict the dependent variable's values. The R^2 value, which ranges from 0.00 to +1.00, measures the proportion of variability in the dependent variable that can be explained by the independent variables. In this research, R^2 is essential in understanding the strength of the prediction.

Presentation of findings and discussion

The findings from the data analysis are presented in an informative manner to help visualize the results of different tests. This section includes the results of structural equation modeling (SEM), partial least squares (PLS), and bootstrapping techniques. The data will be analyzed and presented in a manner that allows for a clear understanding of the findings.

A1) SEM: full/complete data results run

The first step in the analysis is to run SEM on the raw data. If the P-value obtained from this analysis is less than 0.001, the model is considered statistically significant, indicating that the relationships between variables are meaningful and not due to random chance. This result supports the hypothesis and suggests that the data fits the proposed model well.

B2) PLS SEM

PLS is used to evaluate the fit of the SEM model. The Akaike information criterion (AIC) is a statistical method used to assess how well the model fits the data. It compares several models and identifies the one that best explains the data. In this research, the AIC approach showed an r^2 of 0.45 with a P-value less than 0.05 for the first model and r^2 of 0.46 with a P-value less than 0.05 for the second model. Since there is only one model in this study, no comparison can be made using AIC. However, the low P-value (< 0.001) confirms that the model is a good fit for the data.

Bayesian information criterion (BIC)

BIC, the Schwarz criterion, is often used to select the correct model. While AIC is more suitable for determining the best model for predicting future observations, BIC is useful for identifying the most accurate model based on the available data [30]. In this study, since there is only one model, the use of BIC is not necessary.

A1) SEM: full/complete data results run - additional fit measures

Additional fit measures will also be provided to assess the overall model fit, ensuring that the data supports the relationships and hypotheses proposed in the research. This will involve checking various statistical indices and fit measures to confirm the robustness of the model.

This approach aims to present a thorough and educational comparison of the analyses conducted, allowing for a clear understanding of the distinctions between the different tests and their implications for the study's conclusions **(Table 1)**.

Table 1. Fit indices

Index	Value
CFI	0.814
T-size CFI	0.800
Tucker-Lewis index (TLI)	0.793
Bentler-Bonett Non-normed Fit Index (NNFI)	0.793
Bentler-Bonett Normed Fit Index (NFI)	0.809
Parsimony Normed Fit Index (PNFI)	0.728
Bollen's Relative Fit Index (RFI)	0.788
Bollen's Incremental Fit Index (IFI)	0.814
Relative Noncentrality Index (RNI)	0.814
Note. T-size CFI is computed for $\alpha = 0.05$	
Note. The T-size equivalents of the conventional CFI cut-off values (poor < 0.90 < fair < 0.95 < close) are poor < 0.829 < fair < 0.893 < close for model: Model 1	

Fit indices and their meaning

CFI

The CFI is an adjusted version of the relative non-centrality index, designed to assess how well the tested model fits compared to a baseline model. It shows how much better the proposed model is in explaining the observed data. Since there's only one model in this study, no comparisons to other models were made. According to Bentler (1990), a CFI score of 0.90 or higher typically signifies a good model fit. In this case, the CFI did not meet this threshold, but Bollen (1989) argues that values as low as 0.85 can be considered acceptable, indicating some level of progress.

TLI

The TLI is calculated by comparing the chi-square values of the target model and the null model, adjusted for degrees of freedom. A higher TLI value indicates a better model fit, with 0.95 considered a good benchmark for an acceptable fit. However, in this study, the TLI did not achieve the required value for a good fit.

NNFI

The NNFI, similar to the TLI, evaluates the fit of a model relative to a baseline. A low NNFI suggests that the model does not fit well, especially if it is more complex.

Bentler-bonett normed fit index (NFI)

NFI compares the chi-square values of the null and target models, providing a value between 0 and 1. A value above 0.90 typically indicates an acceptable model fit, with 0.95 considered ideal. In this research, the NFI was below the ideal threshold, improving the model by just 81% compared to the null model.

Parsimony normed fit index (PNFI)

The PNFI adjusts for model complexity by comparing the degrees of freedom between the proposed model and the null model. The goal is to ensure that the model's complexity does not artificially inflate the fit. The PNFI in this case was not favored due to several unexplained factors within the model.

Bollen's relative fit index (RFI)

The RFI is derived from the NFI and measures how closely the tested model fits the data. A value closer to 1 indicates a good fit. The RFI of 0.788 here indicates a moderately good fit.

Bollen's incremental fit index (IFI)

The IFI compares the chi-square values of the target model and the independence model (which assumes no correlation among variables). It is less sensitive to sample size, and a value above 0.90 is generally acceptable. In this case, the IFI did not reach the acceptable value, possibly due to a smaller sample size.

Relative non-centrality index (RNI)

The RNI compares non-centrality parameters between the null and tested models. It uses the chi-square value to assess model fit, where a perfect fit would have a chi-square value equal to the degrees of freedom (df). This approach was employed to evaluate the model fit but didn't provide a conclusive result in this study.

B1) Bootstrapping results of SEM after construct deletion

Bootstrapping is a resampling technique that helps assess the stability of the model by repeatedly drawing samples from the data. This method allows the researcher to determine how consistent the results are when certain constructs are removed or altered. The bootstrapping process in this study aims to verify the robustness of the model's significance and ensure its reliability.

Additional fit measures

Besides the indices discussed, other fit measures can be used to further evaluate how well the model fits the observed data. These measures can help identify whether the model provides a reasonable representation of the underlying relationships and allow researchers to adjust for any complexities that may have influenced the results **(Tables 2 and 3)**.

Table 2. Fit indices

Index	Value
CFI	0.814
T-size CFI	0.800
TLI	0.793
NNFI	0.793
Bentler-Bonett Normed Fit Index (NFI)	0.809
Parsimony Normed Fit Index (PNFI)	0.728
Bollen's Relative Fit Index (RFI)	0.788
Bollen's Incremental Fit Index (IFI)	0.814
Relative Noncentrality Index (RNI)	0.814
Note. T-size CFI is computed for $\alpha = 0.05$	
Note. The T-size equivalents of the conventional CFI cut-off values (poor < 0.90 < fair < 0.95 < close) are poor < 0.829 < fair < 0.893 < close for model: Model 1	

B1) Bootstrapping results of the SEM after some constructs were deleted

Table 3. Other fit measures

Metric	Value
RMSEA	0.523
RMSEA 90% CI lower bound	0.512
RMSEA 90% CI upper bound	0.535
RMSEA P-value	0.000
T-size RMSEA	0.535
Standardized root mean square residual (SRMR)	0.365
Hoelter's critical N (α = .05)	5.112
Hoelter's critical N (α = .01)	5.379
Goodness of fit index (GFI)	0.825
McDonald's fit index (MFI)	4.309×10^{-13}
Expected cross-validation index (ECVI)	

Note. T-size RMSEA is computed for $\alpha = 0.05$

Fit indices and evaluation

RMSEA

RMSEA is used to measure how well the model approximates the observed data, with values typically ranging from 0 to 1. An RMSEA between 0.05 and 0.08 is considered indicative of a good model fit [31]. However, in this case, the RMSEA value does not suggest a fit within these accepted limits.

RMSEA 90% confidence interval lower bound

The results from **Table 4** that the lower bound of the RMSEA confidence interval fails to indicate a fit, highlighting the model's inability to meet expected thresholds.

RMSEA 90% confidence interval upper bound

Similarly, the upper bound of the RMSEA confidence interval also shows a poor fit, as it falls outside the optimal range for model fitting.

RMSEA P-value

The RMSEA demonstrates statistical significance with a P-value of 0.000. While this suggests the model has significant results, it does not imply that the model fits the data well, as RMSEA is primarily concerned with model fit rather than significance alone.

Standardized root mean square residual (SRMR)

The SRMR value is another key fit index. A value below 0.08 indicates an acceptable fit, but the SRMR for this model does not meet this standard, suggesting a less-than-ideal fit.

Hoelter's critical N ($\alpha = 0.05$)

Hoelter's critical N is a sample size threshold that determines the acceptability of a model, with values of 200 or more being considered satisfactory [32]. In this study, the critical N value was not met, indicating that the model's sample size was too small to produce a reliable fit.

Hoelter's critical N ($\alpha = 0.01$)

The model also failed to meet the critical N at the more stringent 0.01 significance level, further indicating an inadequate sample size for achieving an acceptable fit.

GFI

The GFI is an absolute fit index, where a value greater than 0.90 indicates a good fit. The results from this study show that the GFI value meets this criterion, suggesting that the model fits the data reasonably well.

MFI

MFI is another absolute fit measure, where values above 0.90 indicate a good fit. The MFI value for this study does not meet this threshold, suggesting that the model does not fit the data as well as expected.

ECVI

The ECVI is an index that assesses the model's predictive capability, with smaller values representing a better fit. The results show that the ECVI is not favorable, indicating that the model may not perform well in predicting future data.

B2) Bootstrapping results of PLS after removing some constructs

Bootstrapping was applied to the PLS model after removing certain constructs. This resampling method evaluates the stability and significance of the results, offering insight into the effect of these changes on the model's performance and fit **(Table 4)**.

Table 4. Regression coefficients

							95% Confidence interval	
Outcome	**Predictor**	**Estimate**	**f²**	**Std. error**	**z-value**	**P**	**Lower**	**Upper**
JS	WC	0.952	9.950	0.027	35.854	< 0.001	0.900	0.995

Analysis of regression coefficients and path model

The regression coefficients across the SEM, PLS, and Bootstrapping analyses all show significance with a P-value of less than 0.001, which is well below the conventional threshold of 0.05. This indicates that the relationship between the 2 variables in the path model is statistically robust. The path coefficient between the 2 variables is extremely high at 0.995, signifying a very strong relationship. The parameter β, also known as the regression coefficient, quantifies the change in the dependent variable (y) in response to a one-unit change in the independent variable (x). Specifically, for every unit increase in x, there is a corresponding average change in y, which corresponds to the slope of the regression line—indicating the steepness (positive or negative) of the relationship.

A1) SEM: full/complete data results run

In the SEM analysis, the total effect is derived by summing the direct and indirect effects. The findings indicate that Work Commitment (WC) has a substantial direct effect on Job Satisfaction (JS), with an estimated coefficient of 0.953. This means that WC has a strong direct relationship with JS in the model.

B1) Bootstrapping results after removing some constructs

The Bootstrapping analysis provides an indication of the significance of factor variances with a P-value of less than 0.001. Factor variance quantifies how much an independent variable's behavior is affected by its correlations or interactions with other variables in the model. In essence, it shows the degree to which one variable contributes to the variability (or error) in the regression model. High factor variance implies that a variable has a significant influence on the standard error of the model, providing insights into its relative contribution to the overall model.

B1) Bootstrapping results: residual variation

Residual variation, also referred to as unexplained or error variance, reflects the discrepancy between the observed data points and the values predicted by the regression model. This error term measures how much the model cannot account for in its predictions. If the model includes an intercept, the sum of these residuals will equal zero, with the mean of the residuals being zero as well. A higher residual variance suggests that the model does a poorer job of explaining the variability in the data.

Path diagram

The path diagram visually represents the relationships between the variables, with arrows indicating the direction and magnitude of the paths (regression coefficients) between them. This diagram is essential in understanding the structural relationships and how the different variables interact in the model, offering a clearer interpretation of the statistical results derived from SEM, PLS, and Bootstrapping analyses.

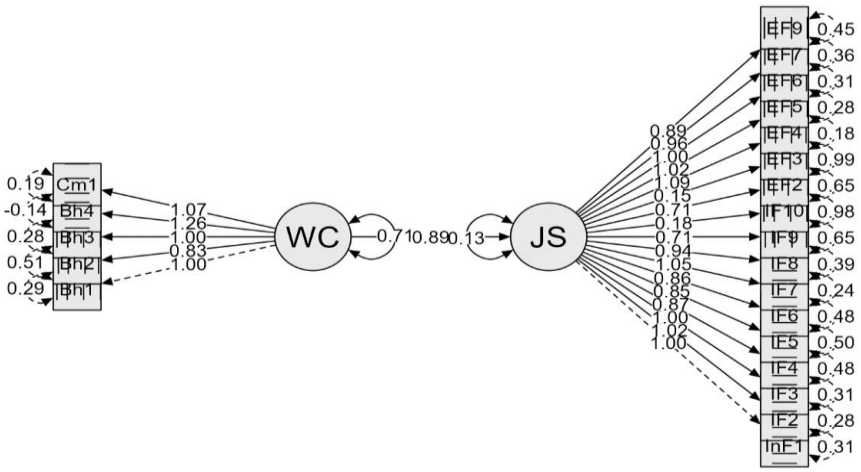

Figure 3. The path model

Figure 3 depicts the path model of the variables with their corresponding factor loadings and residual variance values.

Conclusion

This research successfully tested the hypothesis by utilizing the JASP software for comprehensive data analysis, offering valuable insights into the complex dynamics of job satisfaction and employee motivation within organizational settings.

Numerous studies have emphasized the importance of job satisfaction in motivating employees, and its direct influence on organizational productivity and overall performance [14]. This research sought to explore the key elements of work culture and job satisfaction that contribute to the long-term sustainability and efficiency of MMT passenger operations, especially in light of various challenges the organization has faced.

The primary aim of the study was to identify the specific factors within work culture that influence job satisfaction and, in turn, affect the operational success of MMT. According to Sinha *et al*. (2010), two fundamental reasons are driving the growing academic and practical interest in work culture: first, the belief that an organization's performance is closely tied to how well employees' values align with the broader strategic goals of the organization; and second, the notion that work culture is not static but can be deliberately shaped and influenced to meet the desired outcomes of the organization. These points underscore the importance of understanding how work culture and job satisfaction are interwoven and how their influence can be optimized for organizational benefit.

The MMT organization has faced significant challenges in recent years, including malpractice, mismanagement of resources, and inefficiencies in service delivery. These issues have negatively impacted the company's overall performance and public perception. The analysis of the data using JASP, through model fit and regression coefficients, highlighted several crucial findings that provide deeper insight into the causes of these challenges. By examining the relationship between work culture and job satisfaction, the research has illustrated how internal factors, such as organizational values and employee attitudes, can directly affect service quality and operational outcomes.

The regression analysis results indicate a strong path between work culture and job satisfaction, with a significant correlation between the two variables. This relationship suggests that improvements in work culture could have a measurable impact on employee satisfaction, which in turn could drive higher productivity and operational efficiency at MMT. The study's use of SEM and PLS analysis, which showed strong significance at P-value < 0.001, supports the argument that organizational culture and employee satisfaction are critical to improving MMT's overall performance.

Given these findings, the study encourages future research to expand on these results by incorporating additional variables, such as mediation and moderation effects, to further refine the understanding of how work culture influences employee satisfaction and, ultimately, organizational success. By introducing such variables, future studies can explore the nuanced interactions between various factors and provide more detailed recommendations for improving work culture and employee motivation within MMT and similar organizations.

In conclusion, the research underscores the importance of aligning organizational values with employee satisfaction to achieve greater sustainability and performance. The challenges faced by MMT are not unique but are part of a broader trend in public sector organizations where work culture and job satisfaction directly influence service delivery. The insights gained from this study can help guide MMT's leadership in making informed decisions about improving internal practices, creating a more supportive work environment, and enhancing employee motivation to achieve long-term organizational success.

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