# *Examination of the Impact of Work System Variables on Job Satisfaction Utilizing the MOQS Methodology*

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### *Abstract*

UKM BRIQCO is an SME in Yogyakarta that produces coconut shell charcoal. The results of interviews with the owner obtained an attendance rate that is not by the standard, which is at least 90%, with an indication of worker dissatisfaction with the work system implemented. This study aims to determine the effect of the work system on job satisfaction using the MOQS method. Macroergonomic Organizational Questionnaire Survey (MOQS) is a macroergonomic method to identify symptoms of design problems in work system factors. In addition, this study uses SPSS to process the data statistically. There are 32 respondents, and six variables were used in this study. These variables consist of 5 independent variables and one dependent variable. Based on data processing, it was obtained that independent variables simultaneously affect job satisfaction. The partial test showed that individual characteristics are a work system factor that affects job satisfaction. At the same time, other variables do not affect job satisfaction. After the analysis and discussion, suggestions that can be recommended include evaluating the workload to be evenly distributed, providing rewards and punishments, and providing work motivation to increase enthusiasm and loyalty to the company.

Keywords: job satisfaction, macroergonomics, MOQS, organization, work system

## 1. Introduction

Sometimes, some companies do not consider the importance of employee satisfaction and commitment (Mahmood Aziz *et al.*, 2021). This is because the current labor market allows companies to replace employees when circumstances do not meet their needs. When employees are committed, companies can reap various benefits, including increased productivity, better work quality, reduced delay, and more optimal work time effectiveness. In addition to the significance of preserving employee commitment and satisfaction, the reduction of turnover intention on employee job satisfaction can result in increased productivity, increased contributions to the organization's objectives, and a diminished desire to quit the company (Pratama, Suwarni and Handayani, 2022). Satisfaction is a personal thing because everyone's needs and desires are different.

Yogyakarta is one of Indonesia's cities with many SMEs in various fields, from food to metal processing, such as aluminum (Cahya *et al.*, 2022). One of these SMEs is the BRIPQO SME, which produces coconut shell charcoal briquettes. This SME has turned coconut shells, which were initially not very valuable, into a promising business opportunity. Briquettes made from coconut shells are an alternative fuel or a medium for cooking. The owner of BRIQCO SME confirmed that the level of worker attendance did not meet the BRIQCO SME standards, which suggested worker dissatisfaction. The business owner acknowledged this due to the lack of monitoring of workers and delays in the production of raw materials. Below is data on the level of employee attendance of BRIQCO SMEs per week for the period January to June 2021, which is listed in Table 1 below.

The many interactions can cause dissatisfaction among workers with the work system implemented. It is essential to examine job satisfaction because it can affect employee commitment, performance, individual attitudes, working conditions, and cooperation between employees and superiors. Job

satisfaction is a person's specific view of their work, while the factors influencing the work system are a broader picture. Organizational commitment and job satisfaction have a substantial impact on the desire of employees to depart, which ultimately results in a burden for the company when a significant number of employees leave. According to this investigation, the degree of employee intention to depart is consistently associated with job satisfaction and organizational commitment. In addition to employment satisfaction, this study suggests that organizational commitment is a critical factor in the sustainability of a company's operations.

The macroergonomics approach improves work systems by providing a comprehensive framework that considers the various components of the work environment and their interactions. Specifically, this approach focuses on five aspects: holistic evaluation (Hendrick and Kleiner, 2001), utilization of MOQS (Djordjevic *et al.*, 2020), Identification of key factors (Kleiner, 2006; Salvendy and Karwowski, 2021), recommendations for improvement (Wilson and Sharples, 2015), and integration of human factors (Wickens, 2004; Dul and Neumann, 2009). An assessment revealed that all work system components significantly impacted employee performance, amounting to 61.6% (Darmawan and Ghozy, 2022; Oktadilah and Syarifuddin, 2022). This shows that the design and elements of the work system play a significant role in influencing how well employees perform their tasks. Evaluating organizational conditions in a company or agency is essential for internal improvement and to ensure that the company or agency can fulfill its mission. In other studies, macroergonomics is essential to comprehensively evaluate a working system, identify key problems, and recommend improvements that improve employee performance and overall organizational effectiveness (Poerwanto, 2017). In short, the macroergonomic approach provides a structured method for assessing and improving work systems by focusing on the interactions of various components, leading to increased productivity and employee satisfaction.

Table 1. Summary of UKM BRIPQO worker attendance

| Month | Week | Working Days (Days) | Number of Employees (People) | Number of Working Days (Days) | Number of Days In (Days) | Percentage of Attendance Rate (%) |
|---|---|---|---|---|---|---|
| January | 1 | 6 | 27 | 162 | 116 | 72% |
| | 2 | 6 | 27 | 162 | 149 | 92% |
| | 3 | 6 | 27 | 162 | 146,5 | 90% |
| | 4 | 6 | 27 | 162 | 139 | 86% |
| February | 1 | 6 | 25 | 150 | 140 | 93% |
| | 2 | 6 | 25 | 150 | 139 | 93% |
| | 3 | 6 | 25 | 150 | 130 | 87% |
| | 4 | 6 | 25 | 150 | 147 | 98% |
| March | 1 | 6 | 25 | 150 | 141 | 94% |
| | 2 | 6 | 25 | 150 | 134,5 | 90% |
| | 3 | 6 | 25 | 150 | 130,5 | 87% |
| | 4 | 6 | 25 | 150 | 67 | 45% |
| April | 1 | 6 | 25 | 150 | 129,5 | 86% |
| | 2 | 6 | 25 | 150 | 134,5 | 90% |
| | 3 | 6 | 25 | 150 | 135 | 90% |
| | 4 | 6 | 25 | 150 | 142 | 95% |
| May | 1 | 6 | 27 | 150 | 98 | 65% |
| | 2 | 6 | 27 | 162 | 145 | 90% |
| | 3 | 6 | 27 | 162 | 138 | 85% |
| | 4 | 6 | 29 | 174 | 136,5 | 78% |
| June | 1 | 6 | 29 | 174 | 138 | 79% |
| | 2 | 6 | 29 | 174 | 141,5 | 81% |
| | 3 | 6 | 29 | 174 | 147,5 | 85% |
| | 4 | 6 | 29 | 174 | 151 | 87% |

This study aims to analyze the influence of work system factors on job satisfaction from the perspective of workers at BRIQCO SMEs. Job satisfaction problems can be overcome with a macroergonomic approach, which includes systematically handling all aspects of the work system. Owners rarely carry out the macroergonomic approach to solving problems at the SME level because the decisions often taken are only temporary and do not consider long-term and sustainable effects. Using macroergonomics can later form an organizational culture that will be internalized into a work culture. In several previous studies, the macroergonomics method used to analyze job satisfaction was SHIP (systematic, holistic, interdisciplinary, and participatory), while the one used in this study was MOQS. This is what is new in this study (Ferdianto, 2011). The macroergonomic approach involves a holistic and participatory survey so that all system elements are involved in the planning, implementation, and evaluation processes to ensure the suitability of the results (Broday, 2020).

This investigation will implement the Macroergonomic Organizational Questionnaire Survey (MOQS) methodology to evaluate issues associated with job satisfaction. The MOQS method in this study is used to analyze job satisfaction from an organizational perspective because it is broader and not only sectoral. In addition, organizations can develop a more integrated and employee-centered system, which ultimately increases effectiveness and long-term sustainability. Policies and regulations will emerge from the organization, which can be said to be organizational culture, eventually becoming work culture. This method entails the identification of the characteristics of the overall work system design, which is subsequently applicable at the microergonomics level. Job design characteristics and the interaction between humans and other subsystems are evaluated at the microergonomics level. Effective macroergonomic design will influence the elements of microergonomic design, ensure overall alignment, and produce recommendations for improvement that can increase worker satisfaction (Kalteh *et al.*, 2020).

## 2. Method

The investigation was conducted at UKM BRIPQO in Bangunharjo village, Sewon sub-district, Bantul district, D.I. Yogyakarta province. An SME, UKM BRIPQO, manufactures charcoal from coconut husks. Commercializing this charcoal product commences in the domestic market and extends to foreign countries, including Europe and the Middle East. This research is descriptive quantitative research. Descriptive quantitative research aims to describe and analyze data by describing or depicting the data that has been collected as it is. Descriptive quantitative research usually uses a correlation approach, which is research conducted to determine whether there is an influence (Ali, 2022). In addition, this study explores the impact of the work system on the job satisfaction of 32 workers at UKM BRIQCO.

The MOQS method will be employed to undertake this research. MOQS is an acronym for the Macroergonomics Organizational Questionnaire Survey (Darmawan and Ghozy, 2022). One of the methods in macroergonomics that can identify symptoms and design problems in work systems and provide suggestions for development is MOQS. Furthermore, MOQS can be employed to gather data on a variety of work system components, including tasks, organizational conditions, environmental elements, tools and technology, individual characteristics, quality of work life, physical and psychological stress, physical and mental health, performance, and attitudes (Realyvásquez-Vargas *et al.*, 2018). Of the ten variables in MOQS, only five were used in this study and then used as independent variables.

Variables are attributes, properties, or values of individuals, objects, or activities that exhibit specific variations and are identified by researchers for analysis and conclusions. Organizational conditions ($X_1$), job characteristics ($X_2$), environmental conditions ($X_3$), apparatus and technology ($X_4$), and individual characteristics ($X_5$) represent the five independent variables employed in this investigation. In addition to the five independent variables, job satisfaction (Y) is a dependent variable. Figure 1 below illustrates the diagram of these two categories of variables. This investigation was executed methodically using the established phases. The phases of this research are illustrated in Figure 2 below.
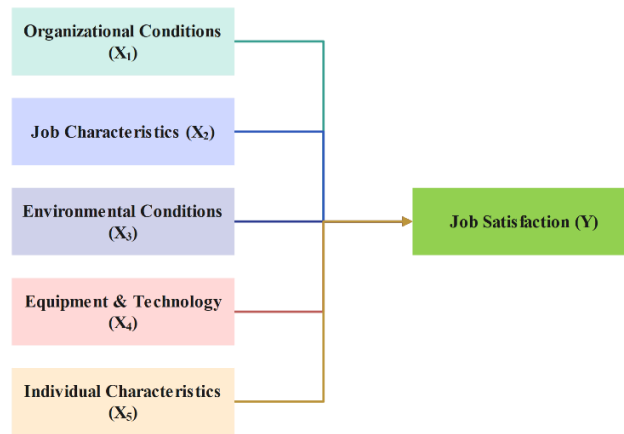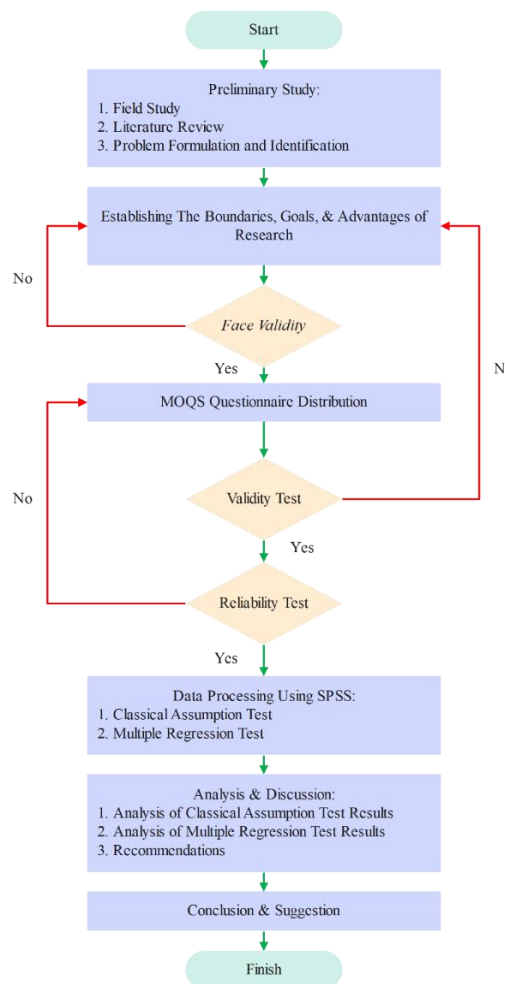
Figure 1. Conceptual research model



Figure 2. Research flow diagram

This study employs multiple hypotheses while analyzing data based on five independent variables and one dependent variable, including:

1. Organizational factors substantially affect job satisfaction ($X_1$).
2. The characteristics of a work significantly influence job satisfaction ($X_2$).
3. The physical environment substantially influences job happiness ($X_3$).

4. Equipment and technology substantially influence job satisfaction ($X_4$).
5. Personal attributes substantially impact job satisfaction ($X_5$).
6. The five independent variables (organizational conditions, work characteristics, physical environment, equipment and technology, and individual characteristics) concurrently influence the dependent variable (job satisfaction) (Y).

## 3. Results and Discussion

### 3.1 Data Collection

This study involved 32 participants who were employees of UKM BRIPQO. The employees were requested to complete numerous surveys to assess their job satisfaction. The data collection occurred on November 27, 2020, and March 13, 2021, with the researcher present assisting the workers. The procedure for completing the MOQS questionnaire is illustrated in Figure 3 below.



Figure 3. Data collection process

### 3.2 Validity Test

Validity testing seeks to evaluate the legitimacy of a research questionnaire (McWhirter *et al.*, 2020). In addition, this test is also used to determine the extent to which this research instrument is accurate and relevant to the concept being measured. This validity test uses the SPSS application. A questionnaire is deemed genuine if its inquiries accurately disclose the dimensions it intends to assess. The questionnaire items are valid if the $R_{count}$ (Pearson Correlation) exceeds the $R_{table}$ value. Based on the tests conducted, the results show that all question items are declared valid. Valid results in this validity test are expected to improve the quality of research or measurement and provide more confidence in the results obtained. The outcomes of this validity testing phase are presented in Table 2 below.

Table 2. Validity test results

| No. | Indicator | Pearson Correlation | $R_{tabel}$ | Conclusion |
|-----|-----------|---------------------|-------------|------------|
| 1 | Organizational Conditions | | | |
| | 1. Item 1 | 0,419 | | Valid |
| | 2. Item 2 | 0,361 | | Valid |
| | 3. Item 3 | 0,370 | 0,339 | Valid |
| | 4. Item 4 | 0,345 | | Valid |
| | 5. Item 5 | 0,545 | | Valid |

Table 2. Validity test results (continued)

| No. | Indicator | Pearson Correlation | $R_{tabel}$ | Conclusion |
|---|---|---|---|---|
| 1 | Organizational Conditions | | | |
| | 6. Item 6 | 0,378 | 0,339 | Valid |
| | 7. Item 7 | 0,357 | | Valid |
| | 8. Item 8 | 0,462 | | Valid |
| 2 | Job Characteristics | | | |
| | 9. Item 1 | 0,389 | | Valid |
| | 10. Item 2 | 0,446 | | Valid |
| | 11. Item 3 | 0,410 | | Valid |
| | 12. Item 4 | 0,549 | 0,339 | Valid |
| | 13. Item 5 | 0,726 | | Valid |
| | 14. Item 6 | 0,347 | | Valid |
| 3 | Environmental Conditions | | | |
| | 15. Item 1 | 0,667 | | Valid |
| | 16. Item 2 | 0,756 | | Valid |
| | 17. Item 3 | 0,713 | | Valid |
| | 18. Item 4 | 0,685 | 0,339 | Valid |
| | 19. Item 5 | 0,696 | | Valid |
| | 20. Item 6 | 0,437 | | Valid |
| 4 | Equipment and Technology | | | |
| | 21. Item 1 | 0,526 | | Valid |
| | 22. Item 2 | 0,694 | | Valid |
| | 23. Item 3 | 0,799 | 0,339 | Valid |
| | 24. Item 4 | 0,593 | | Valid |
| | 25. Item 5 | 0,564 | | Valid |
| 5 | Individual Characteristics | | | |
| | 26. Item 1 | 0,402 | | Valid |
| | 27. Item 2 | 0,404 | | Valid |
| | 28. Item 3 | 0,397 | | Valid |
| | 29. Item 4 | 0,366 | 0,339 | Valid |
| | 30. Item 5 | 0,467 | | Valid |
| | 31. Item 6 | 0,340 | | Valid |
| 6 | Job Satisfaction | | | |
| | 32. Item 1 | 0,344 | | Valid |
| | 33. Item 2 | 0,366 | | Valid |
| | 34. Item 3 | 0,367 | | Valid |
| | 35. Item 4 | 0,527 | 0,339 | Valid |
| | 36. Item 5 | 0,625 | | Valid |
| | 37. Item 6 | 0,587 | | Valid |

*3.3 Reliability Test*

Reliability testing assesses the consistency of a questionnaire as a measure of a variable. A questionnaire is deemed reliable if an individual's responses to the questions remain constant throughout time (Sürücü and Maslakci, 2020). This test is also to ensure that the data collected later can be relied upon and is not influenced by random factors or measurement errors. So that by conducting this reliability test, researchers or instrument users can be sure that the results obtained can be trusted for decision-making. Similar to validity testing, this reliability testing also uses the SPSS application. Testing the five variables used in this study made all variables reliable. When the test results show that all variables are reliable, the impact on the survey includes data consistency, trust in the research results, facilitating analysis, more guaranteed validity of research results, better generalization capabilities, time and cost savings, and increased research quality. In this study, the reliability level assessment was used at 0.6, so it can be considered reliable and suitable as a measuring tool if Cronbach's alpha > 0.60. The outcomes of the test conducted with the SPSS 27 application are presented in Table 3 and Table 4 below.

Table 3. Reliability test results per variable

| No. | Variable | Cronbach's Alpha | Conclusion |
|-----|----------|------------------|------------|
| 1 | Organizational Conditions | 0,793 | Reliable |
| 2 | Job Characteristics | 0,756 | Reliable |
| 3 | Environmental Conditions | 0,747 | Reliable |
| 4 | Equipment and Technology | 0,768 | Reliable |
| 5 | Individual Characteristics | 0,839 | Reliable |

Table 4. Overall reliability test results

| Reliability Statistics | | Conclusion |
|---|---|---|
| Cronbach's Alpha | N of Items | |
| 0,820 | 5 | Reliable |

### 3.4 Classical Assumption Test

The classical assumption test is a test that aims to ensure that the results of the parameter estimates obtained are reliable and unbiased (Nugraha, 2022; Mardiatmoko, 2024). This classical assumption test is usually carried out in a linear regression model. This study includes traditional assumption tests for normality, multicollinearity, and heteroscedasticity. The normality test seeks to ascertain if the data within the regression model, encompassing confounding factors or residuals, adhere to a normal distribution (Alita, Putra and Darwis, 2021). For statistical testing at this stage, use an application called SPSS. Data is considered standard if the computed significance value exceeds 0.05. The Kolmogorov-Smirnov normalcy test yielded a significance value of 0.077. This indicates that the data conforms to a normal distribution. The outcomes of the data normality assessment are presented in Table 5 below.

Table 5. Data normality test results

| | | Unstandardized Residual |
|---|---|---|
| N | | 32 |
| Normal Parameters[a,b] | Mean | 0,0000000 |
| | Std. Deviation | 0,34005858 |
| Most Extreme Differences | Absolute | 0,147 |
| | Positive | 0,147 |
| | Negative | -0,080 |
| Test Statistic | | 0,147 |
| Asymp. Sig (2-tailed) | | 0,077[c] |

a. Test distribution is Normal.
b. Calculated from data
c. Lilliefors Significance Correction

A multicollinearity test assesses the correlation among independent variables in a regression model. Multicollinearity can be evaluated by the tolerance value and the Variance Inflation Factor (VIF). The standard thresholds for identifying multicollinearity are a tolerance more significant than 0.1 and a VIF score less than 10. The test results presented in Table 6 indicate that the model is free from multicollinearity. This explains that there is no correlation between the five independent variables used in this study. In addition to not finding multicollinearity values, the results of this test are also positive. Both criteria state that the results have good regression coefficient accuracy, stable models, more accurate decision-making, and good credibility of research results.

The heteroscedasticity test is conducted to ascertain whether there is a disparity in residual variance between observations in a regression model (Firdausya and Indawati, 2023). When the residual variance between observations remains uniform, it is called homoscedasticity. If the residual variance fluctuates, it is referred to as heteroscedasticity. The optimal regression model exhibits homoscedasticity and is devoid of heteroscedasticity. Figure 3 illustrates a scatterplot where the points are randomly dispersed above and below the Y-axis at zero, lacking any discernible pattern. This signifies the absence of heteroscedasticity in the model.

Table 6. Multicollinearity test results

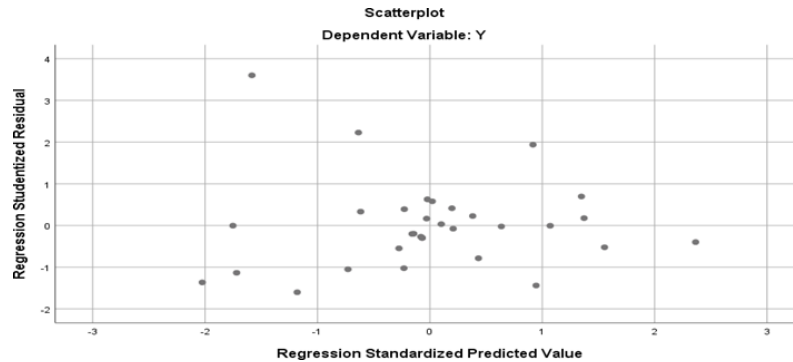| Variables | Collinearity Statistics | |
|---|---|---|
| | Tolerance | VIF |
| Organizational Conditions | 0,471 | 2,124 |
| Job Characteristics | 0,433 | 2,308 |
| Environmental Conditions | 0,264 | 3,781 |
| Equipment and Technology | 0,290 | 3,445 |
| Individual Characteristics | 0,504 | 1,985 |



Figure 3. Scatterplot of heteroscedasticity test

### 3.5 Multiple Regression Test

Multiple regression analysis is a statistical method used to test the relationship between one dependent variable and two or more independent variables (Mistry and Bora, 2019). Multiple regression analysis thoroughly elucidates the link between dependent and independent variables. The results derived from SPSS calculations are presented in Table 7 below.

From Table 7 below, it is evident that a positive value in the Unstandardized B column for the variables $X_1$, $X_2$, $X_3$, $X_4$, or $X_5$ will result in a one-unit (1%) increase in job satisfaction (Y) by the specified value. Conversely, if the variable's value is negative, a one-unit (1%) increase will decrease job satisfaction (Y) by the specified value. For instance, the organizational condition variable ($X_1$) in Table 7 is -0.071. This indicates that a one-unit (1%) increase in $X_1$ will result in a 0.071 or 7.1% decrease in Y.

The t-test results in Table 7 also indicate the strength or weakness of the relationship between the independent and dependent variables. We employ the subsequent hypothesis in this t-test:
$H_0$: The tested variables do not significantly influence the job satisfaction of UKM BRIPQO employees
$H_1$: The tested variables significantly influence the job satisfaction of UKM BRIPQO employees

A significant criterion of 0.05 is employed to ascertain the acceptance or rejection of $H_0$. If the estimated significance value exceeds 0.05, then $H_0$ is accepted, indicating that the tested variable does not influence work satisfaction. Based on the hypothesis and significance values listed in Table 7, it was found that variables $X_1$, $X_2$, $X_3$, and $X_4$ did not significantly affect variable Y. On the other hand, only one variable, namely $X_5$, significantly affects variable Y.

Table 7. Regression coefficient output

| Model | | Unstandardized B | Coefficients Std. Error | Standardize Coefficients Beta | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Tolerance | VIF |
| 1 | (Constant) | 0,788 | 0,832 | - | 0,947 | 0,353 | - | - |
| | X1 | -0,071 | 0,259 | -0,055 | -0,276 | 0,785 | 0,471 | 2,124 |
| | X2 | -0,388 | 0,245 | -0,327 | -1,583 | 0,125 | 0,433 | 2,308 |
| | X3 | 0,192 | 0,217 | 0,234 | 0,887 | 0,383 | 0,264 | 3,781 |
| | X4 | 0,379 | 0,206 | 0,464 | 1,841 | 0,077 | 0,290 | 3,445 |
| | X5 | 0,689 | 0,225 | 0,584 | 3,055 | 0,005 | 0,504 | 1,985 |

The next test determines whether the five variables used simultaneously influence job satisfaction. The type of test applied is the ANOVA test. The ANOVA test determines if all independent variables included in the model concurrently affect the dependent variable (Kristanto *et al.*, 2023; Ma'ruf *et al.*, 2024). The outcomes of the ANOVA test are presented in Table 8 below.

The hypothesis employed in this ANOVA test is as follows:
$H_0$: Independent variables simultaneously do not significantly affect the dependent variable.
$H_1$: Independent variables simultaneously have a significant effect on the dependent variable

According to the hypothesis, $H_0$ will be accepted if the computed significance value surpasses 0.05. If the calculated significance value is below 0.05, $H_0$ will be dismissed. Table 8 represents a computed significance value of 0.001, signifying the rejection of $H_0$. The five independent variables—organizational conditions, work characteristics, physical environment, equipment and technology, and individual characteristics—simultaneously influence the dependent variable, job satisfaction.

The concluding testing phase employs the coefficient of determination test, which seeks to quantify the degree to which the model elucidates variances in the utilized independent variables. The test findings are represented by an R Square value of 0.521, equivalent to 52.1%. The five independent variables in this study influence the dependent variable by 52.1%. Additional factors affect the remaining 47.9%. Other factors may include quality of work life, physical and psychological stress, physical and mental health, performance, and attitudes based on the variables contained in the MOQS. The results of the determination coefficient test can be seen in Table 9 below.

Table 8. ANOVA test results

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 3,899 | 5 | 0,780 | 5,655 | 0,001[b] |
| | Residual | 3,585 | 26 | 0,138 | | |
| | Total | 7,484 | 31 | - | | |

a. Dependent Variabel: Y
b. Predictors: (Constant), $X_5$, $X_4$, $X_1$, $X_2$, $X_3$

Table 9. Results of the determination coefficient test

| Model Summary[b] | | | | | |
|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of The Estimate | Durbin-Watson |
| 1 | 0,722[a] | 0,521 | 0,429 | 0,37132 | 1,956 |

a. Predictors: (Constant), $X_5$, $X_4$, $X_1$, $X_2$, $X_3$
b. Dependent Variable: Y

*3.6 Analysis and Discussion*
Based on the results of the data processing that has been done, it can be explained that of the five independent variables used in this study, only individual characteristics variables have an effect on job satisfaction. Combining the five variables (organizational conditions, job characteristics, physical environment, equipment and technology, and individual characteristics) is also enjoyable. It is produced that these five variables together affect the dependent variable (job satisfaction). In other words, it can be said that the individual characteristics variable is also influenced by the other four variables, such as organizational conditions, job characteristics, physical environment, and equipment and technology) on job satisfaction. So far, UKM BRIPQO has not paid attention to job satisfaction because, for the company, the target is achieved, and what the employee's right is conveyed on time. It turns out that this threatens the company within a certain period. This is evident from the presence of employees who do not comply with the rules imposed by the company. Workers are not just about working and getting rights from their jobs; they also need attention. From this attention, comfort will emerge and ultimately impact job satisfaction. Therefore, this individual characteristic variable is crucial for getting special attention from BRIPQO UKM owners. When someone works in an organization, agency, or company,

the results of their work will impact the organization's productivity level. Therefore, the individual's views and feelings towards their work must be positive (Peiró *et al.*, 2020; Ng and Yang, 2023).

Based on the R Square test results, the five factors, namely organizational conditions, job characteristics, environmental conditions, equipment and technology, and individual characteristics, only influence 52.1% of job satisfaction. Other factors affect the remaining 47.9%. These different factors can be used in subsequent tests. Several other factors that influence employee satisfaction based on research that has been conducted include quality of work life (Zaghini *et al.*, 2023), physical and psychological stress (Singh, Amiri and Sabbarwal, 2019), physical and mental health (Kiliç Barmanpek *et al.*, 2022), performance (Maarif *et al.*, 2024), and attitude (Kemevor *et al.*, 2024). These other factors can be used as additions in subsequent studies so that the influence of what influences worker job satisfaction is increasingly varied.

Job characteristics are internal aspects of a job that refer to the content and conditions of the job. Five job characteristics can motivate employees to get job satisfaction: skill variation, task identity, task significance, autonomy, and feedback (Seqhobane and Kokt, 2021). Job characteristics are essential factors in determining job satisfaction. Work is a person's physical and mental activity to do a job. When an individual works in an organization, agency, or company, the results of the work he completes will affect organizational productivity. Therefore, the individual's views and feelings about his work must be maintained on the positive side of his work. In other words, the individual must have job satisfaction to sustain productivity.

### 3.6.1 The Influence of Individual Characteristics on Employee Job Satisfaction

This study's findings suggest that using individual characteristic variables can facilitate the evaluation of employee employment satisfaction. Individual characteristics significantly influence employee employment satisfaction levels (Giannoukou, 2023). In the implementation of policies to enhance job satisfaction, individual characteristic variables may be taken into account. Each individual has different perspectives, objectives, requirements, and capabilities. Although they are employed in the exact location, the contentment of one individual will differ from that of another due to these differences spilling over into the workplace. The satisfaction of an individual in the workplace will be enhanced by their differences in ability, values, attitudes, and interests, which are attitudes that cause individuals to be glad about specific objects, situations, or ideas. Individual satisfaction can be fostered by the diversity of each individual, including their ability, the value they derive from their work, their attitude, and their level of interest. An individual's abilities, talents, background, demographics, and experiences are individual characteristics (Mardalis *et al.*, 2024). Managers must comprehend individual behavior in organizational behavior, as everyone possesses unique characteristics that influence their behavior. Consequently, to enhance job satisfaction and overall performance, organizations must consider every individual factor, from the recruitment process to the employee development process.

### 3.6.2 Benefits of Employee Job Satisfaction Analysis on Work Systems

The company's leadership policy as the organization organizer must pay attention to and maintain workers' comfort and satisfaction. The company's management policy as the organization organizer must pay attention to and maintain employee comfort and satisfaction (Cardoso *et al.*, 2022). These policies include regular meetings, openness in communication, policies on career levels, workload, work motivation, and policies on determining honorariums to job awards. These various policies must be formulated by considering the company's capabilities while still focusing on continuous improvement. This job satisfaction analysis can provide benefits, especially for BRIPQO SME owners, by conducting positive and negative evaluations to be used as a basis for making the right decisions. The right choices will form a good and ergonomic work culture, which can ultimately increase the company's productivity and profits (Yarahmadi, Soleimani-Alyar and Vafa, 2022; Ambesange, Chandrasekaran and Duffy, 2024). The benefits of job satisfaction are as follows (Putri, Listyani and Wardhani, 2024):
 a. Management gets an indication of the general level of satisfaction within the company.
 b. Communication occurs in all directions as people plan, conduct, and discuss survey results.

   c. Attitudes improved because the survey served as a safety valve, a place to channel emotions, and an opportunity to provide criticism and suggestions.

   d. Training is needed for company supervisors based on the perceptions of the workers they supervise regarding how well the supervisors perform their duties.

### 3.6.3 Impact and Employee Responses to Job Dissatisfaction

Employees who are dissatisfied with their work will implement numerous responses or actions. In response to dissatisfaction, an individual may leave their position or seek employment elsewhere, remain absent, demonstrate a lack of commitment to their work, or permit the company's conditions to deteriorate. There are several responses to job dissatisfaction, such as (Sinha *et al.*, 2022):

   a. Exit: behavior shown to leave the organization, including looking for a new position and resigning.

   b. Aspiration: actively constructively trying to improve conditions, including suggesting improvements, discussing problems with superiors, and some forms of union activity.

   c. Loyalty: passively but optimistically waiting for conditions to improve, including defending the organization when faced with external criticism and trusting the organization and its management to "do the right thing".

   d. Neglect: passively allowing conditions to worsen, including continued absence or tardiness, lack of effort, and increased error rates.

Employees who are dissatisfied with their work will experience a negative impact on the company, as it will influence their work activities. Consequently, it is imperative to promptly address job dissatisfaction to prevent disturbances to the organization's operations.

### 3.6.4 Recommendations Suggestions for Improvement

According to the results of the data processing that has been conducted, job satisfaction is significantly influenced by individual characteristic variables. Increasing employee job satisfaction through individual characteristic variables is anticipated to impact employee performance at work positively. Individual and organizational characteristics significantly influence employee efficacy and job satisfaction (Ahmad, 2018; Yonuari, Septiawan and Marcheline, 2024). Organizations must consider both factors to enhance employee performance and employment satisfaction. Some suggestions for improving the impact of individual characteristics on job fulfillment are as follows:

   a. Company leaders and superiors establish a closer relationship with employees to foster a harmonious co-worker environment and foster familiarity.

   b. Leaders and superiors issue reprimands or sanctions to employees who behave negligently to instill a sense of discipline and ensure they do not underestimate their responsibilities.

   c. Employees are motivated and enthusiastic about their work by their superiors and leaders.

   d. Present awards to employees who have demonstrated exceptional performance in their employment.

   e. Develop and publish Standard Operating Procedures (SOPs) to facilitate employees' work, thereby reducing errors in work activities and ensuring that the work is more organized.

   f. The leader assesses each employee's burden to ensure they are at ease while working.

   g. Remind workers and provide personal protective equipment (PPE) to ensure that they comply with work safety regulations.

## 4. Conclusion

The conclusion that can be drawn from this study is that the five variables (organizational conditions, job characteristics, physical environment, equipment and technology, and individual characteristics) tested using ANOVA testing simultaneously significantly affect the dependent variable, namely job satisfaction. On the other hand, when testing is carried out partially using the t-test, the results are that the four independent variables (organizational conditions, job characteristics, physical environment, and equipment and technology) do not significantly affect job satisfaction. Only one independent variable significantly affects job satisfaction, namely individual characteristics. Based on these results, individual characteristics can improve employee job satisfaction even though the other four independent variables also influence them. Some recommendations for improvement that can be given to BRIPQO UKM owners include regular meetings, openness in communication, career ladder policies, workload, work

motivation, and policies on determining honorariums to rewards. The existence of these recommendations is expected to provide a positive contribution to job satisfaction so that employee performance will increase. This study still has limitations and shortcomings due to the limited research time, so it is hoped that it can be continued in the following survey, which is the implementation of the recommendations given and whether they affect the company. In addition, an analysis of other factors of 47.9% that can influence job satisfaction also needs to be done so that it becomes broad in terms of science and knowledge. Of course, if these factors are known, they will be a scientific treasure for researchers and company owners.

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