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Job Satisfaction, Work Stress, and Individual Work Performance: Does transformational leadership style make a difference in their relationship?

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ABSTRACT

In today's dynamic public sector environment, understanding the factors that drive individual employee work performance is critical to achieving organisational effectiveness. This paper aims to investigate the effects of job satisfaction and work stress on individual work performance among employees in the civil service of Sarawak, with a specific focus on the moderating role of transformational leadership style. Anchored in Social Exchange Theory, the study aims to explore how perceived workplace conditions and leadership styles shape employee performance outcomes through reciprocal exchanges. A quantitative approach will be employed, utilising a structured questionnaire adopted and adapted from established sources to collect data from 132 employees in the Ministry of Food Industry, Commodity & Regional Development (M-FICORD), Sarawak. Data analysis will be conducted using the Statistical Package for Social Science (SPSS) for preliminary descriptive and reliability analyses, while SmartPLS 4 will be used to perform structural equation modelling (SEM) to assess the hypothesised relationships and moderating effects. The study is expected to yield valuable practical and theoretical insights into the dynamics of leadership and employee performance in the public sector, while offering practical recommendations for enhancing workforce productivity, leadership development, and employee well-being in M-FICORD.

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1.0 INTRODUCTION

Individual work performance is defined by Campbell (1990, p. 704) as “behaviours or actions that are relevant to the goals of the organisation”. Thus, individual work performance focuses on behaviours or actions of employees, rather than the results of these actions. In addition, behaviours are under the control of the individual and are not constrained by the environment (Rotundo & Sackett, 2002). Anitha (2014) found that employee performance has a direct impact on both financial and non-financial results of a firm. Job satisfaction, traditionally considered a cornerstone of organisational success (Schleicher et al., 2015), has taken on new dimensions in recent years. While past research has established its positive correlation with performance (Peiró et al., 2020), modern workplace dynamics have introduced new variables that complicate this relationship (Parker & Grote, 2020). Simultaneously, work stress has emerged as a pressing concern, even more so since and after COVID-19. Malaysian civil servants are facing challenges related to work overload, as evidenced by multiple studies across different sectors and regions within Malaysia. For example, a study focusing on the Royal Malaysian Customs Department in Johor highlighted significant work stressors, including work overload, which significantly contribute to work stress among employees (Ahmad et al., 2021).

This is further compounded by the demands placed on civil servants to optimally carry out their duties, making them vulnerable to work stress and burnout, with social support identified as a mitigating factor against such outcomes (Akbar & Soetjiningsih, 2022). Based on a study on the impact of employees’ work stress on the staff’s job performance at the Administrative Office in Samarahan Division in Sarawak, it was found that job demand, control, workload, and time pressure significantly impact job performance. On the other hand, adequate time, decision-making empowerment, and task-related skills improve employee performance (Mohamed Noor et al., 2020). As organisations navigate through uncertain times, transformational leadership, with its emphasis on inspiration and individual consideration, has shown varying degrees of effectiveness. However, these leadership styles’ potential to influence the relationship between workplace well-being factors and performance remains inadequately understood (Carnevale & Hatak, 2020). Furthermore, current organisational trends such as remote work, hybrid arrangements, and increased emphasis on work-life balance (Chung et al., 2022) have added new layers of complexity to how leadership styles interact with employee well-being and performance. The traditional understanding of these relationships may no longer fully apply in contemporary work settings, necessitating fresh investigation into these dynamics.

The public sector is essential to Malaysia's economic transformation into a developed, high-income nation. According to the World Bank Report in 2019, compared to other nations in the area, the nation's public service performs quite well or on par with some governance metrics, although it falls below high-income nations. Public Service is a service designed to meet specific needs for the entire community's members or a service of general interest. People living under a government's control can access public services either directly from public sector organisations or indirectly through public finance given to private companies or nonprofits. The term civil servants describe a group of government workers who work in administrative capacities, overseeing and carrying out national policies, and they play a crucial role in nation-building. They play a significant role in determining the success or failure of government functions. Hassan et al. (2023) noted that while Malaysia’s Public Sector Transformation Programme emphasises performance-based management, research has not adequately examined how different leadership styles facilitate or hinder this transition. Further to that, Sarawak State Government aims for a Civil Service with a strong willingness to gain knowledge and skills to guide and assist economic growth. It is taking a ground-breaking move to change the old Civil Service that was firmly adhered to law and order, into a New Civil Service - one that is dynamic, initiative-taking, efficient, collaborative, and flexible enough to operate within the rules and laws (Francis, 2024). The reform aims to position the New Civil Service as a driving force aligned to the Post COVID-19 Development Strategy (PCDS) 2030 (Sarawak Government, 2021). PCDS 2023 is a long-term Plan that provides the direction and strategies for Sarawak to achieve its aspiration of a developed State by 2030. The Ministry of Food Industry, Commodity and Regional

Development (M-FICORD) is of particular interest in this study, as Agriculture is one of the economic sectors identified as the driving force in the PCDS 2030.

Despite various research on these variables done independently (Bakker & Demerouti, 2018), there remains a critical gap in understanding how the interaction between job satisfaction and work stress influences individual work performance, particularly when considered through the lens of different leadership approaches. First, while existing literature has established direct relationships between job satisfaction and performance (Judge & Piccolo, 2004; Harrison et al., 2021), as well as between work stress and performance (LePine et al., 2005), there is limited empirical evidence on their combined interactive effects. Most studies have examined these variables in isolation, failing to capture the dynamic nature of how they simultaneously influence individual performance in real-life settings (Nielsen et al., 2017), particularly the Sarawak Civil Service. Secondly, although leadership styles have been widely studied as direct predictors of employee outcomes (Hoch et al., 2018), their role as a moderator remains underexplored, particularly in the context of civil service in Sarawak. The existing literature has not adequately addressed how different leadership approaches such as transformational leadership style might differentially affect the strength or direction of the relationship between workplace well-being factors and individual work performance (Arnold, 2017; Inceoglu et al., 2018). While some studies suggest that transformational leadership may buffer the negative effects of work stress (Walsh & Arnold, 2020), others indicate that transactional leadership could provide the structure needed to maintain performance under pressure (Abas & Ali, 2021). Based on these inconsistent findings, the current study proposes transformational leadership as a potential moderator between job satisfaction and individual work performance, and between work stress and individual work performance. Third, there is a notable absence of integrated frameworks that simultaneously consider both the positive (job satisfaction) and negative (work stress) aspects and their interaction with leadership style (Crawford et al., 2010; Schaufeli & Taris, 2014). This gap is particularly significant given that employees typically experience both satisfaction and stress concurrently (Bakker & Demerouti, 2018), and their leaders often exhibit a mix of transformational and transactional behaviours (Bass & Riggio, 2006; Avolio et al., 2009). Therefore, this paper investigates the complex relationship among job satisfaction, work stress, and individual work performance and leadership styles in the Ministry of Food Industry, Commodity and Regional Development (M-FICORD), using Social Exchange Theory. The main aim is to understand the relationships among individual work performance, job satisfaction, work stress, and the possible moderating effect of transformational leadership style.

2.0 LITERATURE REVIEW

This section discusses the relevant literature related to the study. It starts with Social Exchange Theory, followed by each of the variables and the relationship with each other. These variables are individual work performance, job satisfaction, work stress, and transformational leadership style.

2.1 Social Exchange Theory

Social Exchange Theory (SET) is a prominent sociological and psychological framework used to analyse social interactions (Homans, 1958). It postulates that humans function as rational actors, engaging in cost-benefit analyses when navigating social situations and relationships. In essence, individuals strive to maximise rewards and minimise costs associated with social exchanges. This theory suggests that social exchange interactions are based on reciprocity, which results in obligations between the parties involved (Blau, 1964; Cropanzano & Mitchell, 2005; Emerson, 1976). SET is commonly used in organisational behaviour to understand how employees and employers create and maintain reciprocal connections (Chen et al., 2005). The idea provides insight into why employees may be more or less interested in their employment (Lee & Veasna, 2013) and how the organisational support system affects subordinates' creativity and good behaviour. Social Exchange Theory sheds light on relationship formation, development,

and potential dissolution within most relational contexts, both professional and personal. The theory aids in comprehending employee motivation, satisfaction, and commitment within organisations, among others.

2.2 Relationship between Job Satisfaction and Work Stress with Individual Work Performance

Job satisfaction, work stress, and individual work performance are crucial aspects of the modern work environment. Job satisfaction refers to an individual's contentment and fulfilment derived from their work, while work stress pertains to the psychological and physical strain experienced in the workplace. On the other hand, individual work performance reflects an employee's ability to effectively conduct their tasks and achieve desired outcomes. Understanding the relationship between these factors is essential for organisations to create a conducive work environment that promotes employee well-being and productivity.

The relationship between job satisfaction and individual work performance has been a central focus in organisational behaviour over the past several decades (Judge et al., 2020). Job satisfaction, defined as an employee's overall evaluative judgment of their job experience (Locke & Latham, 2019), has consistently demonstrated significant associations with various performance metrics in the workplace. This relationship is theoretically grounded in the Social Exchange Theory, which posits that satisfied employees reciprocate their positive job experiences through enhanced work performance (Cropanzano et al., 2018). Aside from that, work stress has evolved into a global issue that manifests itself in a variety of ways in every workplace. Employees these days usually work longer hours and take on greater responsibilities. This, requires them to push themselves even more fiercely to fulfil the growing expectations of their job performance. Work stress is an unavoidable part of every profession, and everyone must deal with it in practically every area of their lives. If work stress is not managed properly, it can very quickly escalate into burnout and affect work-life balance (Chung et al., 2018; Chung et al., 2022).

2.3 Transformational Leadership styles as a moderator

Moderator variables are typically introduced when there is an unexpectedly weak or inconsistent relation between a predictor and a criterion variable (Baron & Kenny, 1986). Moderation helps to understand how context influences associations. Whenever it is suspected that the relationship between two variables might depend on a third factor, a moderator variable can be introduced. In the current study, a transformational leadership style is proposed as a moderator that could potentially influence the strength of the relationship between job satisfaction and work stress on individual work performance.

Leadership is a multifaceted concept that has evolved over time, encompassing various theories and practices. At its core, leadership involves influencing and guiding individuals or groups towards achieving common goals. It involves setting a vision, inspiring others, and directing efforts to foster motivation, commitment, and collaboration (Antonakis & Day, 2020; Northouse, 2021). Among the various leadership styles are transformational leadership, transactional leadership, autocratic leadership, democratic leadership, laissez-faire leadership, and servant leadership, among others. Transformational leadership focuses on inspiring and motivating team members to work towards a common goal. The leader creates a vision and inspires their team members to strive towards achieving it. This type of leader is aware of his or her followers' needs and motivations and collaborates with them to realise their greatest potential. According to Bass and Riggio (2006), transformational leaders are initiative-taking and build emotional bonds with their followers, change the organisational environment, and deliver new realities. The transformational leadership model includes four dimensions: idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration. Idealised influence involves followers trusting and respecting the leader emotionally, while inspirational motivation encourages followers to go above and beyond their capabilities; intellectual stimulation allows followers to be creative, imaginative, and develop new methods of addressing issues (Avolio et al., 1999); and individualised consideration, where the leader serving as a coach and mentor, collaborating with workers to address their concerns and development requirements. Judge and Piccolo (2004) found that transformational leadership behaviours significantly contribute to positive outcomes such as job satisfaction, motivation, and performance in organisations.

Similarly, Bass and Riggio (2006) emphasise the broad applicability of transformational leadership in fostering innovation and collaboration in diverse industries. In summary, transformational leadership style offers distinct approaches to guiding teams and organisations. Transformational leadership is more effective in environments that require innovation, adaptability, and personal development. Will this be the scenario at M-FICORD?

3.0 HYPOTHESES DEVELOPMENT

The literature review in the earlier sections suggests that there is a correlation between individual work performance, job satisfaction, work stress, and transformational leadership styles. Based on these findings, and in conjunction with the discussion on Social Exchange Theory, the following section discusses hypothesis development, which will steer the direction of this study.

Social Exchange Theory (SET) is a framework that explains how job satisfaction affects individual work performance. It suggests that relationships are built on reciprocal exchanges, where individuals seek to maximise benefits and minimise costs. In the workplace, employees' satisfaction with their jobs leads to increased effort and commitment (Maan et al., 2020). High levels of organisational support enhance job satisfaction, psychological empowerment, and proactive behaviours. A balance between employee efforts and rewards leads to greater job satisfaction, fostering higher engagement and commitment. A positive work environment, facilitated by incentives and rewards, can boost employee motivation and job satisfaction, leading to higher productivity and overall performance. The higher the employee's perception of comfortable working conditions, the more satisfied they are likely to be in carrying out work activities.

3.1 Hypothesis 1

Job satisfaction has consistently been shown in multiple studies to have a direct correlation with improved individual work performance. Various factors contribute to job satisfaction, including compensation, promotional opportunities, work environment, training opportunities, relationships with supervisors, nature of work, and performance appraisal. These factors play a significant role in enhancing individual performance by increasing job satisfaction. Moreover, studies conducted by Rodrigo et al. (2022). Kurniawan (2023) supports the idea that job satisfaction has a positive and substantial impact on employee performance. It is essential for organisations to prioritise job satisfaction through various strategies to ensure that individual performance levels are optimised. Maintaining high levels of job satisfaction is key to achieving peak performance levels within an organisation. Therefore, this paper hypothesises that:

H1: Job satisfaction has a positive relationship with individual work performance among employees at M-FICORD.

3.2 Hypothesis 2

Workplace stress is frequently brought on by bureaucratic procedures, resource constraints, and high job demands in public sector organisations such as the Sarawak Civil Service. Based on Social Exchange Theory, tension and unhappiness are caused when workers believe their efforts are not recognised by the organisation with sufficient support or benefits. As a result, this stress may impair their productivity at work (Noblet & Rodwell, 2009). According to Social Exchange Theory (SET), work stress can have a detrimental effect on an individual's ability to perform at work. This is applicable to the Sarawak Civil Service, where leadership philosophies and organisational dynamics can be quite important. Even in high-stress circumstances, employees are more likely to respond with greater performance and dedication when they feel encouraged and treated fairly. The relationship between work stress and individual work performance is complex and often described as a double-edged sword. While a moderate level of stress can sometimes motivate individuals to push themselves and achieve their best, chronic or excessive stress can have detrimental effects on both individual well-being and organisational productivity. The optimal level of

stress for performance varies across individuals and situations. While a temporary challenge can be stimulating, chronic stress is a threat to both individual and organisational health. Work stress has been consistently shown to have a negative and significant impact on individual work performance across various studies. Factors such as the amount of work stress experienced on the job, the work environment, and the overall psychological status of employees have all been linked to decreased performance levels (Menuh et al., 2022). These findings underscore the importance of managing work stress effectively to maintain and enhance individual work performance in various organisational settings. Based on the above evidence, therefore, it is hypothesised that:

H2: Work stress has a negative relationship with individual work performance among the employees at M-FICORD.

3.3 Hypothesis 3

The relationship between job satisfaction and individual work performance is well-documented, with higher job satisfaction generally leading to better work performance. However, this relationship is often moderated by leadership style, meaning that the impact of job satisfaction on work performance can vary depending on the type of leadership employees experience. The correlation between job satisfaction and individual work performance is heavily impacted by the type of leadership style employed, with a particular focus on transformational leadership. Several studies, including those by Lai et al. (2020), have shown that transformational leadership plays a positive role in enhancing job satisfaction. This increased job satisfaction is closely linked to improved job performance. Moreover, it was also found that job satisfaction acts as a significant mediator in the relationship between transformational leadership and job performance. According to SET, social behaviour results from an exchange process that aims to maximise benefits and reduce costs. This implies that, in the workplace, staff members are more likely to show positive behaviour, such as improved job performance, in return for their superiors' good treatment. Transformational leaders create an environment of intellectual stimulation, inspire and motivate their staff, and attend to the needs of each individual employee. The foundation of SET is the leader-employee interaction, which is improved by this leadership approach. Workers are more likely to feel appreciated and encouraged when they see their leaders as transformational, which raises job satisfaction (Polus et al., 2018). Employees are thus more driven to work better as a result of their higher job satisfaction, as they feel obligated to repay their leaders for their kind treatment. While the direct impact of transformational leadership on work performance may not always be statistically significant, as noted by Anom et al. (2023), the indirect influence through job satisfaction is crucial. This suggests that employees who are highly satisfied with their jobs are more likely to demonstrate better work performance, especially when they are working under the guidance of transformational leaders. Overall, these findings underscore the importance of transformational leadership in fostering job satisfaction and ultimately enhancing individual work performance. Based on the evidence above, it is hypothesised that:

H3: The positive relationship between job satisfaction and individual work performance would be stronger for the transformational leadership style.

3.4 Hypothesis 4

The correlation between work stress and individual work performance can be influenced by the leadership style, particularly transformational leadership. According to Ferdinan and Lindawati (2021), work stress has a significant positive impact on innovative work behaviour, which consequently affects overall performance. As a result, it can be inferred that the negative association between work stress and individual work performance might be less pronounced in individuals under a transformational leadership style due to the mediating and moderating impacts on stress and performance. According to the SET, individuals partake in social behaviours with the intention of optimising advantages and minimising drawbacks in their interactions. Within a workplace setting, this can translate to colleagues assisting one another, sharing expertise and resources, and collaborating harmoniously towards shared objectives. Even

in the face of work stress, transformational leadership may foster a supportive environment that lessens its negative consequences, improving individual work performance and job satisfaction. Employees who feel appreciated and supported by their leaders have stronger relationships, which helps mitigate the detrimental effects of stress on work output. In other words, the detrimental relationship between work stress and individual work performance can be mitigated by the constructive interactions and support provided by transformational leaders (Robert & Vandenberghe, 2022). Based on the above, this study hypothesises that:

H4: The negative relationship between work stress and individual work performance would be weaker for the Transformational leadership style.

Figure 1 shows the conceptual framework of the current study.

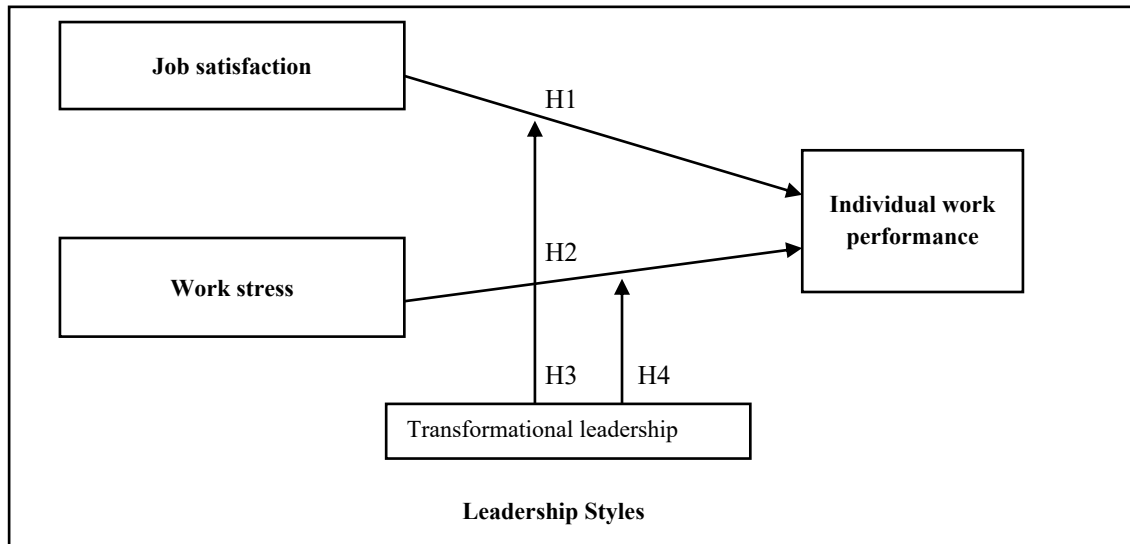


Fig. 1. Conceptual Framework

4.0 METHODOLOGY

4.1 Instrumentation

Koopmans' model for individual work performance (Koopmans et al., 2013, 2014) provides a structured way to evaluate employees' individual performance. The framework, known as the Individual Work Performance Questionnaire (IWPQ), divides individual work performance into three primary dimensions, each containing specific items designed to capture different aspects of employee performance. These dimensions are task performance, contextual performance, and counterproductive work behaviour. Each dimension covers a different aspect of work behaviour, offering a holistic view of an employee's performance at work. The IWPQ consists of 18 questions in three scales: task performance (5 items), contextual performance (8 items), and counterproductive work behaviour (5 items). The IWPQ has a recall period of 3 months and a rating scale from 0 "seldom" to 4 "always" for task and contextual performance, and 0 "never" to 4 "often" for counterproductive work behaviour. For the IWPQ subscales, a mean score is calculated by adding the item scores and dividing their sum by the number of items in the subscale. Hence, the IWPQ yields three subscale scores that range between 0 and 4, with higher scores reflecting higher task and contextual performance, and higher counterproductive work behaviour.

Job Satisfaction Questionnaire

The Job Satisfaction Survey (JSS) by Spector (1985) is a validated scale for assessing job satisfaction. It contains 20 items and measures nine distinct facets of job satisfaction. It covers nine facets of job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Each item is rated on a 6-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree".

Work Stress Questionnaire

The work stress questionnaire to be used in this study was developed by Parker and DeCotiis (1983) to measure work stress. It assesses various aspects of work-related stress experienced by employees. This 10-item questionnaire covers various facets of work stress, including workload, time pressure, work-life balance, and perceived expectations. Respondents rate each item on a Likert scale to indicate the extent to which they experience these work-related stressors. Each item is rated on a 6-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree". The WSS has been adapted for use in various countries, including Malaysia. It has been employed to assess stress among employees in both the public and private sectors, such as in education, healthcare, and administrative roles.

Transformational Leadership Style

The Multifactor Leadership Questionnaire (MLQ) (Avolio et al., 1999) measures how often a leader demonstrates behaviours associated with five dimensions of transformational leadership. The key dimensions of transformational leadership are idealised influence (attributed and behavioural), inspirational motivation, intellectual stimulation, individualised consideration. These items above help to measure how leaders inspire, motivate, intellectually stimulate, and individually consider their followers, which are the hallmarks of transformational leadership. Each item is rated on a 5-point Likert scale, with responses ranging from 1 (Not at all) to 5 (Always). Scores are calculated for each dimension of transformational leadership, with higher scores indicating stronger transformational leadership behaviours.

4.2 Population and sampling method

This study aims to examine the effects of job satisfaction and work stress on individual work performance, moderated by transformational leadership style, among the civil servants in Sarawak, using the Theory of Social Exchange. As of 2025, there are a total of 28,000 civil servants in Sarawak (Francis, 2024). There are a total of 216 staff in this Ministry and its agencies. To ascertain a representative sample size from the target population mentioned above, a stratified sampling technique will be used. Stratified sampling is a sampling method where researchers divide a population into distinct subgroups, or strata, based on specific characteristics such as age, gender, income level, or education. Each stratum is then sampled using another probability sampling method, like simple random sampling, to ensure that every subgroup is adequately represented in the final sample. Stratified sampling is particularly useful when researchers want to ensure that all subgroups are represented in the sample, which can improve the generalisability and validity of the study. In stratified sampling, the population is divided into strata, or homogeneous subgroups, based on one or more characteristics. The sample size for each stratum can be calculated using the formula for simple random sampling, adjusted for the size of the stratum and the expected variability within the stratum. The total sample size for the entire population would be the sum of the sample sizes for each stratum, taking into account the size of the stratum and the expected proportion of the sample from each stratum. For this study, stratum refers to each of the five divisions in M-FICORD. Using G Power calculation, a sample size of 132 is needed for the current study.

4.3 Pretesting and Pilot Testing

Pretesting is typically conducted prior to the actual dissemination of the questionnaire. Pretesting aims to evaluate the suitability of the questions, comprehensibility of the respondents, and consistency of the

responses (Hair et al., 2022). Pretesting entails a smaller sample of respondents that mirrors the target population of the research. It allows the researcher to gather feedback on the instructions, format, wording, language clarity, redundancy of the items, and the overall layout of the questionnaire for necessary modifications before the main survey (Hair et al., 2022). This study will utilise expert evaluation and interview methods to pretest the questionnaire. The expert evaluation will engage topic experts with profound knowledge in the subject matter and survey methodologists with expertise in gathering the most precise data. Academics and industry professionals will be contacted to assess the appropriateness of the items used to assess the constructs (i.e., content validity), scale formats, clarity of the language, and wording utilised, as well as redundancy in the questionnaire. The insights, comments, and feedback provided by the experts will be instrumental in enhancing the quality of the questionnaire. Adjustments will be implemented to the items based on the feedback received. Subsequently, interviews will be conducted with a select group of actual respondents to gauge their perspectives on the revised questions. To achieve this, a few respondents from various divisions will be invited to engage in face-to-face sessions to offer feedback on the survey questionnaire. These respondents will be tasked with rephrasing or interpreting each question while completing the questionnaire. If no issues are identified and the questions are comprehended as intended by the respondents, the final survey will be conducted for the actual data collection.

A copy of the electronic survey questionnaire using Google Form with the items discussed above will be used to collect data from the respondents. Before that, a pretest will be carried out by administering the questionnaire to a group of 15 to 20 staff through the researcher's contacts. The rule of thumb is to test the survey on at least 12 to 50 people prior to the full-scale administration (Sheatsley, 1983). Pretest is the stage in the development of a questionnaire that determines the potential effectiveness of the questionnaire. It is used to refine questionnaire design and identify errors in the questionnaire. The purpose of this step is to determine if respondents understand the questions as well as if they can perform the tasks or have the information that the questions require. It also provides the most direct evidence for the validity of the questionnaire data for most items. Further improvements will be made based on the feedback from the pretest, after which a pilot test will be conducted. To ensure the quality and validity of the data, a pilot test before launching the full-scale data collection. A pilot test is a small-scale trial run of data collection methods, tools, and procedures, with a sample of the target population. It helps to identify and address any potential problems, risks, or gaps in the data collection plan and improve the design and implementation. Up to 25 respondents will be selected based on convenience sampling to complete this pilot test.

4.4 Data collection procedure

To collect data required for this study, permission needs to be sought from M-FICORD, and research ethics approval needs to be sought from Universiti Teknologi MARA Sarawak Branch. Once clearance is received, data collection can commence using convenience stratified sampling methods. The online questionnaire will be created using Google Forms, and an email with a web link connecting to the online questionnaire will be sent to each respondent using the email addresses provided in the M-FICORD Staff Directory. A total of 132 responses are needed. Data collection is estimated to take between 2 to 3 weeks to complete, after which the data will be cleaned and analysed using methods described in the next section.

4.5 Data Analysis Methods

After the data has been collected, they will first be checked to ensure every item in the questionnaire has been answered. For incomplete responses, they will be treated or discarded accordingly. This study will use two different software to analyse the data, they are Statistical Package for the Social Sciences (SPSS) version 29 and Structural Equation Modelling (SEM) utilising Partial Least Squares (PLS) SmartPLS 4. SPSS software, which is the first-generation software, will be used for data entry, definition, and preparation. SmartPLS 4 application a graphical user interface software for PLS-SEM data analysis. The SmartPLS software is chosen due to its high usability and user-friendly qualities (Sarstedt & Cheah, 2019), besides its popularity in performing explanatory and predictive PLS- SEM analyses. The software also generates well-organised tables and graphics that can be exported to Excel and HTML formats.

Furthermore, the main results are shown in a graphical modelling window, which allows a straightforward assessment and export of models (Memon et al., 2021).

Normality of data can be checked using visual methods and normality tests. This is to ensure that the data are normally distributed and within the acceptable range. First of all, data will be checked for its Kurtosis and Skewness. Kurtosis is a measure of the peakedness of a distribution. Apart from skewness and kurtosis analysis, visual methods to be used are such as the frequency distribution, stem-and-leaf plot, boxplot, P-P plot (probability-probability plot), and Q-Q plot (quantile-quantile plot) are used for checking normality visually (Field, 2009). The P-P plot plots the cumulative probability of a variable against the cumulative probability of a particular distribution (e.g., normal distribution). A Q-Q plot is very similar to the P-P plot except that it plots the quantiles (values that split a data set into equal portions) of the data set instead of every individual score in the data. Next, the internal consistency of the items in the four dimensions will be tested. It is a measure of the extent to which all the variables in the scales are positively related to each other. Internal consistency is usually measured with Cronbach's alpha. According to Nunnally (1978), as a rule of thumb, an alpha value of between 0.6 to 0.7 is considered acceptable, while 0.8 or higher indicates good reliability.

Descriptive statistics will be the next analysis. It allows researchers to quantify and describe basic characteristics of a data set. This analysis will include calculation of frequency such as count, percent, and frequency; central tendency such as mean, median, and mode; measure of variation such as standard deviations in relation to the respondents' demographic background, as well as the four variables in this study. Next, data will be transferred to SmartPLS 4 for the Structural Equation Modelling (SEM) technique for path modelling and factor analysis of the constructs. SEM is a second-generation multivariate data analysis technique that allows the simultaneous modelling of relationships among multiple variables. The ability to test the links between multiple independent and dependent variables resembles the main advantage of the second-generation statistical analysis method. Another advantage of the SEM as a second-generation analysis method is that it is able to handle both confirmatory and exploratory analyses (Ramayah et al., 2018).

5.0 CONCLUSION

Individual work performance is a critical determinant of the success of any organisation, including the civil service. Coined as the "iron rice bowl", civil service in Sarawak has come a long way, and it is undergoing transformation. In the effort to achieve the objectives outlined in the PCDS2023, civil servants play a crucial role as the catalyst and agent of change. Job satisfaction and work stress are two factors that have a direct impact, though in opposite directions, on individual performance. Many studies have established these relationships, but limited studies have tested the effects of these variables within the civil service context, especially with the transformational leadership style as the possible moderator. With Social Exchange Theory as the underpinning theory, the main aim of this paper is to understand the relationships among individual work performance, job satisfaction, work stress, and the possible moderating effect of transformational leadership style. It will investigate the complex relationship among job satisfaction, work stress, and individual work performance and leadership styles in Sarawak Civil Service. Data will be collected from employees of M-FICORD Sarawak via a survey method and will be analysed using SPSS and SmartPLS4 to test the four hypotheses. The anticipated findings are expected to offer both intellectual and practical implications: intellectually, the research will contribute to the growing body of knowledge on the interplay between psychological factors and leadership in public sector performance; practically, it can inform leadership development programmes and human resource policies tailored to enhance employee well-being and effectiveness. Talent management and succession planning can be a more informed decision based on the anticipated findings. Ultimately, this study could support Sarawak's civil service in fostering a more engaged, resilient, and high-performing workforce.

6.0 CONTRIBUTION OF AUTHORS

Ellen Chung designed the research, supervised research progress, co-write and revised the article. Corina Joseph conceptualised the central research idea and provided the theoretical framework. Thadeus Ling Bartholomew Allu wrote the article and carried out the research.

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8.0 CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

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10.0 REFERENCES

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