Work Environment, Human Resource Practices, and Organizational Culture: A Causal Model on Service Quality of Employees in Government Agency in Davao Region

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Abstract

Purpose: This quantitative, non-experimental study aimed to establish the best-fit structural model for the service quality of employees in a national government agency, with a specific focus on the Department of Environment and Natural Resources (DENR) in the Davao Region. Its significance lies in contributing to the existing body of knowledge in the field of public administration, leading to a more efficient and effective delivery of public services. Examining the relationship between factors such as the work environment, human resource practices, and organizational culture concerning service quality, this study builds upon the conclusions drawn from international research, which has investigated these factors in other countries but has yet to address the specific context of the Philippines, particularly in the Davao Region. Therefore, this study would address the gap by examining these relationships in the local context, contributing valuable insights to the literature on service quality in the Philippines.

Methodology: A standardized instrument, administered through the Google platform, was used to survey 400 rank-and-file employees selected via stratified sampling in the Davao Region. The data collected were analyzed using statistical methods, including mean and standard deviation calculations, Pearson correlation analysis, multiple regression, and structural equation modeling (SEM).

Findings: The study revealed that the service quality (dependent variable) was very high, while the work environment, human resource practices, and organizational culture (independent variables) were all at high levels. A Pearson correlation analysis unveiled a statistically significant and positively correlated relationship between the independent and dependent variables. Multiple regression analysis indicated that work environment, human resource practices, and organizational culture influence service quality. Moreover, organizational culture was found to be the best influencer of service quality of employees. Significantly, Model 5 emerges as the most fitting structural model for assessing service quality. The model demonstrated the direct influence of the work environment on service quality. Additionally, the SEM model identified specific variables that can predict service quality: training and development and evaluation and supervision (for human resource practices), physical and social work environment (for work environment), and adaptability, consistency, and involvement (for organizational culture).

Recommendations: Therefore, the discoveries from this study offer valuable insights with direct relevance to policymakers and managers seeking to improve service quality in national government agencies.

Keywords: Public Administration, DENR Employees, Work Environment, Human Resource Practices, Organizational Culture, Service Quality, SEM, Philippines
1.0 INTRODUCTION

The quality of service provided by public sector employees has been a longstanding concern in government administration for many years. Numerous complaints have been lodged regarding the poor delivery of frontline services to the public by government employees (Maduraiveeran & Lasi, 2020). In the Philippine context, the most frequent complaints against government employees in 2022 were delayed processes, impoliteness, inadequate facilities, unresponsive requests, and inactive hotline numbers. Over the past decade, slow service has consistently remained the top concern, followed by complaints about impoliteness (Contact Center ng Bayan, 2022). These problems have often been attributed to factors such as a lack of work motivation, job dissatisfaction, insufficient support and guidance from immediate supervisors, and interpersonal conflicts among coworkers. Moreover, due to the poor work environment, the government employees become sluggish and indolent that resulted to poor service quality (Maduraiveeran & Lasi, 2020).

Service quality is very important in the public sector to achieve organizational objectives, including the agency’s mandate and mission (Development Academy of the Philippines, 2022), and is vital to the success of any service organization (Meesala & Paul, 2018; Haryono, Eryanto & Wibowo, 2021). Consequently, to attain excellent service quality in an organization, especially in the government, the management needs to provide public servants with satisfactory remuneration, bonus, promotion, appraisal appreciations, good training and development and better workplace environment (Maduraiveeran & Lasi, 2020). The more the employees are satisfied with remuneration, the most quality services will be provided, thus making them inspired to provide their highest attempts towards assigned tasks (Jogarao & Krishna & Krishna, 2018). Service quality could also be achieved if the organization upholds a strong organizational culture, which increases both the employees’ and the organization’s overall performance (Gantsho & Sukdeo, 2018). In addition, the organization should possess a good frontline service and encourage all the employees to work hand in hand for the sustainability of quality services to be given to clients and all the people concerned (Andre, 2019).

This study on service quality is significant because this would help to assess the current conditions of government employees’ job service quality in the national government agency, particularly at Davao Region’s Department of Environment and Natural Resources (DENR). Moreover, it would undoubtedly add evidence to existing literature relevant to public administration. Advancing the service quality implies more effective and efficient delivery of public services. Hence, this study would provide a new perspective on how to strategically increase the motives of employees in providing excellent quality public services for others.

Moreover, the results of this study could be beneficial to the DENR since this may provide enlightenment in terms of what specific aspects in the operation of the national governments should be considerably prioritized in advancing the degree of service quality of its employees. This will lead to the creation of an intervention plan for the national governments. National government officials may also benefit from this study’s results since this will provide insights about how established the service quality of its subordinates in delivering public services. Furthermore, the study’s outcome could be considered benchmark data for future researchers to replicating this study in other settings.

Problem Statement

There were various research in the international setting investigating factors that may have linked to service quality such as (1) work environment and service quality correlated by Abdi (2018) in Africa; (2) human resource practices and service quality correlated by Khassawneh and Mohammad (2021) in Canada; and (3) organizational culture and service quality correlated by Gantsho & Sukdeo (2018) in South Africa. However, there was no study conducted in the Philippines, particularly in Davao Region...
covering all the aforementioned variables. Hence, the findings of this study would fill the gap in the literature regarding these topics, especially in the local context.

Objectives of the Study

The main objective of the study was to find the best fit structural model for service quality through work environment, human resource practices, and organizational culture. Specifically, this study aimed:

1. To determine the level of employee perception on work environment in a government agency in Davao Region in terms of physical work environment, psychological work environment and social work environment.
2. To determine the level of employee perception on human resource practices in a government agency in Davao Region in terms of recruitment and hiring, training and development, benefits and compensation, and evaluation and supervision.
3. To determine the level of Employee Perception on Organizational Culture in a government agency in Davao Region in terms of involvement, consistency, adaptability, and mission.
4. To determine the level of service quality of national government employees in terms of reliability, responsiveness, assurance, empathy, and tangibles.
5. To determine the significant relationship between work environment, human resource practices, and organizational culture to service quality.
6. To determine the most influential exogenous variables on the service quality of national government employees.
7. To determine what model best fits service quality of the national government employees.

The null hypotheses were tested at a 0.05 level of significance:

1. There was no significant relationship between work environment, human resource practices, and organizational culture to service quality.
2. There was no exogenous variable that best influenced the service quality of employees in a government agency in Davao Region.
3. There was no model that best fit the service quality of employees in a government agency in Davao Region.

Theoretical Framework

This study was anchored on the following theory and propositions. Social Exchange Theory, first developed by sociologist George C. Homans in 1961, served as the main basis of this study. The social exchange theory proposed that social behavior resulted from an exchange process. According to this theory, people weighed the potential benefits and risks of social relationships. When the risks outweighed the rewards, people would terminate or abandon that relationship (Cherry, 2020).

The theory suggests that when employees feel well-treated by management, they become committed to reciprocating with exceptional effort. This is because they perceive that effective service quality supports their personal and organizational goals, motivating them to exceed performance standards (Sarande, Naparota, Cabalida, & Lovina, 2022). In Social Exchange Theory, Sarande et al. (2022) advanced the idea that employees with a better workplace environment significantly increased their service quality performance.

Meanwhile, a study by Abdi (2018) asserted that there was a robust positive correlation between service quality and the work environment, psychological environment, and social work environment.
Each of these factors exhibited statistical significance, suggesting that an increase in the combined variables of the work, psychological, and social work environment resulted in an increase of service quality. This proposition was one of the bases of this study. Additionally, Khassawneh et al. (2021) examined the relationships between human resource practices (HRP) and service quality and found that there was a strong relationship between human resource practices and service quality, which was another supporting concept for this study.

Additionally, Gantsho & Sukdeo (2018) found that organizational culture had a strong significant impact on service quality levels within the organization, which served as another basis for this study. Building upon the foundations of Social Exchange Theory, this study extends its focus to examine the relationship between factors such as the work environment, human resource practices, and organizational culture concerning service quality. While existing international research has explored these factors in various countries, a significant research gap exists in addressing the specific context of the Philippines, particularly in the Davao Region.

**Conceptual Framework**

The theoretical models comprised of two latent constructs such as independent (exogenous) and dependent (endogenous) variables. In this study, the independent variables include the work environment, human resource practices, and organizational culture. Moreover, service quality is the dependent variable of the study. As latent variables were not directly observed, it logically followed that they could not be directly measured. Hence, the study’s primary focus was on determining the magnitudes of the regression paths from the latent variable to the observed variables.

In Hypothesized Model 1, the correlation of work environment, human resource practices, and organizational culture and their direct causal relation to service quality was presented. This was reflected through the illustration of single-headed arrows pointing to service quality from the latent exogenous variables, as shown in Figure 1.

*Figure 1: A hypothesized model illustrating the direct relationship between latent exogenous and latent endogenous variables*
2.0 LITERATURE REVIEW

The first exogenous variable is work environment. It is defined as the physical setting in which people work (e.g., heat, equipment, office layout, and design) and inherent features of the job such as workload and task complexity, and is an essential component of the organization for workers to improve their work motivation as needed by the organization (Hasbi, Sukimi, Latief, & Yusriadi, 2019; Sahid, Amirullah, Rahman, Senaman, & Yusriadi, 2020).

This variable is composed of three indicators. Firstly, physical work environment includes tangible factors like machinery, office layout, temperature, ventilation, and lighting where a job is performed (Abdi, 2018). Secondly, psychological work environment refers to the set of characteristics of the work environment that affect how the worker feels (Caniago, 2023). Finally, social work environment involves workplace relationships, including communication styles, interactions between superiors and subordinates, coworker relationships, willingness to help, and teamwork (Iteba and Wekesa, 2018).

Furthermore, effective management of the work environment is crucial for promoting employee well-being and productivity. Research has shown that positive work environments can lead to increased employee motivation, productivity, and well-being (Yusriadi, Amirullah, & Rahman, 2019; Kanto, Wisadirana, Chawa, & Umanailo, 2020). Conversely, negative work environments can have detrimental effects on employee health and output (Wardani & Peristiowati, 2020). Therefore, it is important for organizations to invest in creating and maintaining work environments that support employees and enhance their job satisfaction.

Physical aspects of the work environment include the setting and job characteristics in which people work. Abdi (2018) defines the work environment as the physical setting and job characteristics in which people work. Meanwhile, Maidaryanti, Rusti, Putri, and Veronika (2021) found that a comfortable and pleasant work environment can motivate employees to work effectively and enhance work efficiency. In addition, Widodo, Djamil, & Saluy (2021) and Putri (2023) emphasized the importance of the work environment in influencing employee task performance.

Psychological and social aspects of the work environment are also crucial. Negative work environments can have detrimental effects on employees’ physical and mental health, as well as their...
work output (Hafeez, Yingjun, Hafeez, and Mansoor, 2019). Conversely, a high-quality work environment can significantly impact employee productivity and performance (Taheri, Miah, and Kamaruzzaman, 2020). Wardani et al. (2020) found that poor work environments can result in negative outcomes such as increased stress levels, frequent illnesses, and decreased productivity among workers. Therefore, it is essential for organizations to prioritize the creation of positive work environments that foster employee well-being, enhance productivity (Solekah & Rizalie, 2022; Putri, 2023), and improve service quality (Purnawan, Jasfar, & Hady, 2019).

The importance of the work environment in organizational success cannot be overstated. Positive work environments can lead to increased employee motivation, productivity, and well-being, while negative work environments can have detrimental effects on employee health and output. Therefore, it is crucial for organizations to prioritize the management of their work environments to ensure that they are conducive to employee success and satisfaction. To create a positive work environment, organizations can focus on improving physical, psychological, and social aspects of the workplace. This can include providing comfortable and well-equipped workspaces, implementing policies and procedures that promote work-life balance and employee engagement, and fostering a culture of respect and support among employees (Putri, 2023). By prioritizing the creation of positive work environments, organizations can enhance employee productivity, well-being, and service quality, and can enhance their overall performance and achieve long-term success, while minimizing the negative effects of poor work environments.

The second exogenous variable is human resource practices. This variable construct consists of four indicators such as recruitment and hiring, training and development, benefits and compensation and evaluation and supervision.

Moreover, effective human resource (HR) practices are vital for organizations looking to maximize employee potential and enhance organizational performance. Studies have shown that employees who perceive their organization’s human resource practices positively are more likely to exhibit attitudes and behaviors consistent with the organization’s objectives (Ali, Hussain, and Khan, 2020 and Gürlek and Uygur, 2021). In addition, effective human resource practices have been found to improve employee and organizational performance (Mahmood, Akhtar, Talat, Shuai, & Hyatt, 2019; Ali, 2019; Aboramadan, Albashiti, Alharazin, and Dahleez, 2020) and contribute to competitive advantage (Ahmad, Matthew, Muhammad, Rehman, & W, 2019; Sabuhari & Irawanto, 2020). However, it is important to note that not all human resource practices are equally effective, and some may have unintended consequences or negative impacts on employee performance and well-being (Bandara & Amarasinghe, 2023).

In this study, one critical aspect of effective human resource practices is recruitment and hiring. Khassawneh (2018) argues that effective recruitment and selection practices are crucial for attracting and hiring the right employees who align with the organization’s goals and values. However, certain selection criteria, such as personality tests, have been criticized for their reliability and validity (Diekmann & König, 2018).

Another important human resource practices is training and development. Jawaad, Amir, Bashir, and Hasan (2019) highlight the significance of training and development programs for enhancing employees’ skills and knowledge, keeping them up-to-date with new technologies and best practices, and promoting continuous learning. However, the effectiveness of such programs depends on various factors, including the design, delivery, and evaluation (Bagajjo, 2022).

According to Adnan, Zarrar, and Zaffar (2021), providing competitive compensation and benefits is crucial for both attracting and retaining skilled workers, as well as encouraging them to achieve their highest potential. They furthered that better compensation can lead to better staff performance.
Similarly, Ray, Bagchi, Alam, and Luna (2021) found in their study that a satisfied and happy employee is more likely to be committed to the organization. Conversely, organizations with low compensation, poor working conditions, and a lack of career development and training are likely to experience low employee retention rates and high employee turnover rates (Van Driessche, 2020).

Lastly, evaluation and supervision are critical for providing employees with feedback, coaching, and support to improve their performance and achieve organizational goals (Al-Jedaia & Mehrrez, 2020). However, the use of performance appraisals has been criticized for their reliability and validity, potential biases, and negative effects on employee morale and job satisfaction (Synergita, 2023).

Recent studies have emphasized the importance of employees as valuable assets to organizations and their significant contribution to organizational performance (Pandey, 2020; De Clercq, Kundi, Sardar, & Shahid, 2021). Therefore, effective human resource practices are essential for maximizing employee potential and enhancing organizational performance. This highlights the need to prioritize effective human resource practices to ensure long-term organizational success (Ali, Sharhan, & Alsaedi, 2021).

The third exogenous variable is organizational culture. Organizational culture is a shared values, attitudes, behaviors, and practices that characterize the way people work and interact within an organization (Imran, Ismail, Arshad, Zeb, & Zahid, 2022). This latent variable construct is composed of four indicators namely: involvement, consistency, adaptability, and mission (Tulcanaza-Prieto, Aguilar-Rodríguez, & Artieda, 2021). The first indicator is involvement; this refers to the degree to which employees are engaged and committed to their work and to the organization’s goals and values. The second indicator is consistency; refers to the degree to which an organization’s systems and processes are standardized and aligned with its values, goals, and strategies. The third indicator for the variable organizational culture is adaptability; refers to an organization’s ability to respond to changes in its environment, whether those changes are driven by internal factors (such as changes in leadership, strategy, or technology) or external factors (such as changes in the economy, market conditions, or regulatory requirements). The last indicator is the mission; refers to the fundamental purpose or reason for an organization’s existence, as well as its long-term strategic direction and goals (Gantsho & Sukdeo, 2018).

Furthermore, organizations are made up of individuals and groups, and without the human element, an organization cannot exist. Successful organizations work to unite these individuals by ensuring that they are fully aware of, study, and convinced of the organization’s objectives. (Caliskan & Zhu, 2020; Lubis & Hanum, 2020).

Organizational culture has been found to have a significant impact on various factors within an organization, which can ultimately lead to the organization’s success or failure. Previous studies have confirmed that organizational culture influences human resource practices and affects working individuals. Additionally, organizational culture impacts work environment and motivation for better performance, and has a significant impact on the general performance of employees by increasing organizational citizenship and organizational symmetry (Al-Omoush, 2021; Vanesa, Matondang, Sadalia, & Daulay, 2019; Rofifah et al., 2021).

A strong organizational culture enhances the effectiveness of employees and the organization, leading to increased levels of productivity and engagement and, ultimately, contributing to an overall improvement in the organization’s success. Strong organizational culture has also been found to have a significant impact on the strategies adopted to achieve organizational goals. Additionally, a strong organizational culture can motivate employees not only to innovate and maintain high-quality standards but also to establish harmonious relationships with their colleagues and work effectively and efficiently, contributing positively to their work environment and the overall success of the organization (Pathiranage, 2019; Novryanto, 2019; Rosalina, Mulyono, & Wahyono, 2023).
A strong organizational culture has a significant impact on employees’ behavior, particularly in providing quality services to clients, leading to increased work productivity. In contrast, a weak culture can lead to high turnover, poor customer relations, passivity, and disorientation, resulting in decreased performance levels, employee morale, and productivity, all of which can be detrimental to organizational success. Organizational culture is crucial for sustaining job satisfaction, performance, and service quality (Budi & Abidin, 2021; Ssemugenyi, Asumwa, & Kazibwe, 2020; Alkhodary, 2023; Vernadeth, Anindita, & Aida, 2020; Gutterman, 2020; Paais & Pattiruhu, 2020; Soomro & Shah, 2019; DP & Riana, 2020; Karakasnaki, Psomas, & Bouranta, 2019).

Mission serves as the driving force behind every employee in the organization, providing clear direction, motivation, and a guide for decision-making and goal setting, ultimately leading to increased work performance and the achievement of organizational goals (Budi & Abidin, 2021). Organizational culture shapes the behavior and attitudes of employees toward their work and the organization. A positive organizational culture can contribute to the overall success and sustainability of the organization (Kanto et al., 2020). Thus, it is critical for organizations to prioritize creating and sustaining a positive culture that supports and engages employees, leading to improved job satisfaction, increased productivity, and ultimately, the achievement of organizational goals.

Meanwhile, service quality is the endogenous variable of this study. Service Quality refers to a service provided by an agency, which requires the agency to ensure that the service is consistently of a high quality, while also being reliable and fair to customers (Yusriadi, Awaluddin, Farida, Tahir, & Misnawati, 2020). This latent construct is composed of five indicators such as reliability, responsiveness, assurance, empathy, and tangibles (Ramya, Kowsalya, and Dharanipriya, 2019).

The first indicator for the variable service quality is reliability; refers to the level of stability and trustworthiness that a service provider exhibits when it comes to fulfilling their commitments to their clients. The second indicator is responsiveness; this refers to the eagerness and readiness to assist customers by delivering speedy service. The third indicator is assurance; this refers to the level of knowledge and courteousness exhibited by employees, which can generate a sense of trust and confidence in customers. The fourth indicator is empathy; this refers to the personalized care and concern that a company offers to its customers. The last indicator is tangibles; this refers to the visual and physical attributes of a company’s facilities, equipment, communication materials, and technological resources.

Furthermore, the importance of service quality for an organization’s success and survival has been emphasized by Ramya, Kowsalya, and Dharanipriya (2019). This is further supported by Rusli, Baharuddin, Hutagalung, Yusriadi, Lilinesia, and Nurhaida (2021), who found that service quality has an immediate impact on an organization’s reputation. Additionally, Yusriadi et al. (2020) showed that a high level of service quality benefits a company. Service quality can also impact organizational performance, as demonstrated by Awino (2018) and Gantsho & Sukdeo (2018). Therefore, organizations should focus on both improving and maintaining high levels of service quality and consistently monitor and check the performance of their employees.

Employee loyalty is a crucial factor in achieving high levels of service quality, as noted by Tomic, Tesic, Kuzmanovic, and Tomic (2018) and Zakaria, Mohamad, Abd Majid, Aziz, and Rashid (2019). When employees are loyal to their organization, they are more likely to be committed to their work, strive to provide high-quality services to their customers, and help the organization achieve its goals and objectives (Ansari, 2021). Employee loyalty can be attributed to various factors such as a positive working environment (Supit, Lopian, & Gunawan, 2022), effective human resource practices (Ahmed and Singh, 2020), and a supportive organizational culture (Pramudita, Suyono, and Elisabeth, 2022) that they experience within their workplace. It is therefore essential for organizations to foster a
positive work environment and promote effective human resource practices and a supportive organizational culture to encourage employee loyalty and improve service quality.

On the other hand, there were numerous studies that have been conducted on the relationship between the work environment and service quality. Zam, Nongkeng, Mulat, Ardian Priyambodo, Yusriadi, Nasirin, and Kurniawan, (2021) and Solekah and Rizalie (2022) found a significant and positive relationship between the work environment and service quality, with the latter emphasizing that having a better work environment can significantly influence higher service quality. This implies that if an organization invests in creating a good work environment for its employees, it can lead to an increase in the quality of services provided by those employees. Similarly, Purnawan, Jasfar, and Hady (2019) concluded that when employees are provided with a comfortable and supportive work environment, they are more likely to perform well and provide better quality services to customers.

Furthermore, human resource practices have been identified as a significant factor in influencing service quality. Jogarao & Krishna et al. (2018) found that human resource practices significantly influence service quality, while Ibrahim (2020) found that a positive correlation exists between human resource practices and service quality. Their findings indicated that organizations should prioritize human resource practices that support employee training and development, as this can lead to improved performance and service quality. Ibrahim (2020) further emphasizes the need for organizations to keep up with the latest advancements in training techniques to enable employees to acquire new skills and knowledge, which can also enhance service quality.

Organizational culture has also been identified as a key factor in influencing service quality. Several studies, including Abu-Alhaija, Yusof, Hashim, and Jaharuddin (2018); Gantsho & Sukdeo (2018); Jaya, Hafasnuddin, and Majid (2019); Al-Otaibi, Yusof, and Ismailismail (2020); Alshemmari (2020); Egdaire (2020); Pratomo (2020); and Ssemugenyi, Asumwa, and Kazibwe (2020), have found that organizational culture significantly influences service quality. Similarly, Nuraini, Riadi, Umanailo, Rusdi, Badu, Suryani, Irsan, Ismail, Pulhehe, and Hentihu (2019); Kanto et al., 2020; and Haryono et al. (2021) found that improving an organization’s culture can lead to improved service quality provided by its employees and overall performance of the organization. They furthered that an organization’s culture can play a crucial role in shaping the behavior, attitude, and motivation of employees towards providing high-quality services to customers.

Finally, Jamasali-Abdula, Genuba, and Lovina Jr. (2022) emphasized in their study that all the predictor variables require one another to substantially affect the endogenous variable, emphasizing the interconnectedness of the factors that influence service quality. Overall, the literature review suggests that organizations need to focus on creating a conducive work environment, implementing effective human resource practices, and fostering a positive organizational culture to enhance service quality.

3.0 METHODOLOGY

Presented in this section is the method of the study. This comprises of the research respondents, materials and instrument, and design and procedure.

Research Respondents

The study was conducted across 16 field offices of Department of Environment and Natural Resources (DENR) in Region XI, including 5 in Davao Oriental, 3 in Davao del Norte, 3 in Davao de Oro, 1 in Davao Occidental, and 4 in Davao del Sur. The respondents for this study were the 400 rank-and-file employees of the Provincial Environment and Natural Resources Offices and the Community Environment and Natural Resources Offices (PENROs and CENROs) of DENR in Region XI. Additionally, when conducting research, choosing the right sample size was crucial to guarantee the
validity and reliability of the outcomes. Deng, Yang, and Marcoulides (2018) emphasized that having enough participants in structural equation modeling (SEM) studies is crucial because it ensures reliable testing of hypothetical relationships between theoretical constructs and observed indicators.

Conversely, small sample sizes in SEM studies, particularly those below 200, have been known to cause problems for researchers (Deng, Yang, & Marcoulides, 2018). Following SEM literature and quantitative research principles, the researcher set the sample size at 400 respondents (Dagohoy & Dura, 2022), taken from the 16 DENR field offices. Dagohoy and Dura (2022) emphasize the importance of a larger sample size in structural equation modeling (SEM) to ensure robustness and accuracy, especially when dealing with complex latent variables and multiple observed variables.

To select the samples, the researcher employed a stratified random sampling method with a 66% intensity for the entire population of rank-and-file employees in the field office. In total, 400 samples were obtained, with 120 from Davao Oriental, 77 from Davao del Norte, 78 from Davao de Oro, 109 from Davao del Sur, and 16 from Davao Occidental. Random sampling was utilized to ensure fairness in respondent selection. The survey excluded supervisors and heads of offices. Respondents had the option to withdraw from the questionnaire at any time, but none chose to do so.

Materials and Instrument

The researcher adapted four downloaded questionnaires from web sources, which were subsequently modified and validated by both internal and external validators to enhance their validity and reliability as well as to ensure their suitability for the study. The instrument for work environment was adapted from the study of Abdi (2018) titled “The Impact of Employee Motivation on Quality of Service Offered to Corporate Banking Customers: A Case of Equity Bank.”

The instrument for human resource practices is from the study Influence of Human Resource Practices on Employee Intention to Quit by Martin (2011). Besides, the instrument for organizational culture was from the study A Multimethod Organizational Culture Analysis of a State Correctional Institution Using a Modified Denison Organizational Culture Survey by LaCasse (2010).

The instrument for service quality was adapted from the study Measuring Service Quality: Perceptions of Employees by Ramseook Munhurrun, Naidoo, and Lukea-Bhiwajee (2010).

The work environment questionnaire was composed of three indicators namely: physical work environment, psychological work environment, social work environment. The human resource practices questionnaire was composed of four indicators namely: recruitment and hiring, training and development, benefits and compensation, and evaluation and supervision. The organizational culture questionnaire was composed of four indicators namely: involvement, consistency, adaptability, and mission. The service quality questionnaire was composed of five indicators namely: reliability, responsiveness, assurance, empathy, and tangibles.

In measuring the degree of these variables, the scale used was 4.20-5.00 which means that the measures of variables are always evident and/or manifested; 3.40 – 4.19 which means that the measures of variables are often evident and/or manifested; 2.60-3.39 which means that the measures of variables are sometimes evident and/or manifested; 1.80 – 2.59 which means that the measures of variables are seldom evident and/or manifested; and 1.00 – 1.79 which means that the measures of variables are almost never evident and/or manifested.

The research questionnaires underwent a thorough validation processes to ensure content validity, including feedback and refinement by a panel of experts. The final version incorporated their suggestions, and their ratings were consolidated to assess the questionnaire’s quality. Remarkably, the final version obtained a validation rating of 4.855, indicating its excellence. This thorough validation process confirms the instrument’s reliability and validity, ensuring the credibility of the study’s results.
Furthermore, the questionnaire’s reliability was assessed using a pilot test with Cronbach’s alpha, which measures internal consistency. Cronbach’s alpha values range between 0 and 1, with higher values indicating stronger internal consistency (Adeniran, 2019). In the pilot test, a Cronbach’s Alpha score above 0.70 was necessary for scale reliability. Using 30 separate samples, not part of the target respondents, all scales had to pass this test to guarantee the validity and reliability of the questionnaires.

The Cronbach’s alpha values for the modified questionnaires assessing the work environment, human resource practices, organizational culture, and service quality are noteworthy indicators of internal consistency. The questionnaire for the work environment demonstrated an excellent level of internal consistency, with a Cronbach’s alpha value of 0.907. Similarly, the questionnaire evaluating human resource practices exhibited good internal consistency, as reflected in a Cronbach’s alpha value of 0.869. The questionnaire addressing organizational culture displayed an excellent level of internal consistency, with a Cronbach’s alpha value of 0.971. Furthermore, the questionnaire pertaining to service quality also demonstrated an excellent degree of internal consistency, with a Cronbach’s alpha value of 0.925.

**Design and Procedure**

In the study, the researcher utilized a quantitative non-experimental research design and made use of Structural Equation Modeling (SEM) to determine the best-fit model of service quality.

Structural equation modeling (SEM) is commonly used in studies that aim to build structural models (Manuel, Ligan, & Bandiola, 2022; Plaza-Saligumba, Ligan, & Dura, 2022). SEM is capable of attributing relationships between observed and unobserved constructs, yielding valid and meaningful results (Gana & Broc, 2019; Karakaya-Ozyer and Aksu-Dunya, 2018; Keith, 2019; Mueller & Hancok, 2018). In addition to attributing relationships, SEM employs mathematical models to uncover causal relationships between dependent and independent variables at different scale levels (Verma & Pearl, 2022). SEM ensures fit consistency in research (Fan, Brown, Das, & Wolfson, 2019; Raposo, & Barceló, 2021).

Furthermore, this study utilized regression analysis to identify the independent variable that best predicts service quality among national government employees in Region XI, namely work environment, human resource practices, or organizational culture. SEM and regression both need an outer loading above 0.70 (Hair Jr, Hult, Ringle, Sarstedt, Danks, & Wolfson, 2021a; Hair, Astrachan, Moisescu, Radomir, Sarstedt, Vaithilingam, & Ringle, 2021b).

Additionally, this study utilized a correlation procedure as it was non-experimental in nature (Devi, Devi, Pradhan, Giri, Lepcha, & Basnet, 2022). The data collected for this study were naturally existing attributes and were not subjected to any manipulations or changes, hence making it non-experimental (Mauriello, 2021).

The data gathering process in this study involved several steps. Firstly, the researcher prepared a formal written communication addressed to the validators requesting them to review the questionnaires intended for the research study. The tools were subjected to comments, recommendations, and suggestions. After validation, pilot testing was conducted. Secondly, the researcher obtained endorsement from the Dean of the Graduate School and sent a letter to the Regional Executive Director of the DENR in Region XI to seek permission to distribute the research instrument to DENR employees in the five (5) provinces of Davao Region.

Thirdly, the researcher coordinated with the Human Resource Management Officers (HRMOs) of the DENR field offices in the five (5) provinces of Davao Region, with the assistance and approval of the Office of the Regional Executive Director of DENR Regional XI, to distribute the survey form to the respondents through email or Facebook Messenger. The survey was administered to a total of 400
respondents, and the response rate was 100%. The data were analyzed securely on a personal laptop, and once the analysis was complete, the records were deleted.

Additionally, the study employed various statistical tools to analyze the data and test the hypotheses at a significance level of 0.05. The mean was used to determine the perceptions of national government employees regarding work environment, human resource practices, organizational culture, and service quality. Pearson’s r was also utilized to establish the correlation between work environment, human resource practices, organizational culture, and service quality. Regression analysis was conducted to determine which exogenous variable could best predict the service quality of national government employees in Region XI. SEM and factor analysis were used to find the best-fit model meeting specific criteria, employing AMOS for analysis.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>large value</td>
</tr>
<tr>
<td>P value</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>Chi Square/Degrees of Freedom (CMIN/DF)</td>
<td>0 &lt; value &lt; 2</td>
</tr>
<tr>
<td>Normed Fit Index</td>
<td>&gt; 0.95</td>
</tr>
<tr>
<td>Comparative Fit Index</td>
<td>&gt; 0.95</td>
</tr>
<tr>
<td>Goodness of Fit Index</td>
<td>&gt; 0.95</td>
</tr>
<tr>
<td>Tucker-Lewis Index</td>
<td>&gt; 0.95</td>
</tr>
<tr>
<td>Root Mean Square of Error Approximation (RMSEA)</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>P close</td>
<td>&gt; 0.05</td>
</tr>
</tbody>
</table>

On the other hand, this study under UMERC Protocol Number: UMERC-2023-056, adhered rigorously to ethical standards and protocol assessments. It placed a strong emphasis on ethical considerations, such as voluntary participation, privacy protection, and informed consent. Stratified random sampling was employed to ensure diverse representation among participants, thereby mitigating potential risks to well-being. The research aimed to provide government agencies with evidence-based insights, taking preventive measures against plagiarism and data manipulation to maintain academic integrity. The study maintained a commitment to transparency and trust by remaining free from conflicts of interest and external influences and implementing thorough validation processes. Formal authorization was obtained, and online platforms were effectively utilized for data collection. In terms of authorship, the researcher held the position of the first author, and the adviser was acknowledged as the second author, with the researcher’s Curriculum Vitae included in the final manuscript to confirm qualifications.

4.0 FINDINGS

This section presented an organized presentation of the study results, following the objectives outlined in the introduction. The demonstration of findings followed the sequence of employees’ perceptions of the work environment, human resource practices, organizational culture, and service quality in a government agency in Davao Region. The study also examined the relationships between work environment, human resource practices, organizational culture, and service quality, as well as the impact of external factors on service quality. This section also presents a structural model that illustrates the level of service quality among employees in a government agency in Davao Region.

Employee Perception on Work Environment in a Government Agency in Davao Region

The results of the study, as presented in Table 1, assessed the perception level of national government employees on their work environment using three indicators: physical work environment, psychological work environment, and social work environment. The means of these indicators ranged
from 3.89 to 4.19, with an overall mean of 4.00 and a standard deviation of 0.61. These values indicated that respondents strongly agreed with the survey questions, demonstrating a high level of perception on their work environment.

The study found that the physical work environment indicator received the highest mean rating of 4.19, implying that the respondents had a positive perception of the physical features of their work environment. The standard deviation of 0.62 indicated that the responses for this indicator were fairly consistent. Conversely, the psychological work environment indicator received the lowest mean rating of 3.89, which was described as high, indicating that the respondents had a comparatively lower perception of the psychological aspects of their work environment. The social work environment indicator received a mean rating of 3.91, which was also qualitatively described as high.

However, the standard deviation of 0.84 suggested that there was more variability in the respondents’ perceptions of the social aspects of their work environment compared to the other two indicators. Thus, the findings of this study on the level of perception of national government employees regarding work environments suggested a positive perception among the respondents regarding the statement presented on work environments. The high level of agreement could be attributed to the consistently high ratings given by the respondents on all indicators.

### Table 1: Level of Employee Perception on Work Environment in a Government Agency

<table>
<thead>
<tr>
<th>Indicators</th>
<th>SD</th>
<th>Mean</th>
<th>Descriptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Work Environment</td>
<td>0.62</td>
<td>4.19</td>
<td>High</td>
</tr>
<tr>
<td>Psychological Work Environment</td>
<td>0.62</td>
<td>3.89</td>
<td>High</td>
</tr>
<tr>
<td>Social Work Environment</td>
<td>0.84</td>
<td>3.91</td>
<td>High</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>0.61</strong></td>
<td><strong>4.00</strong></td>
<td><strong>High</strong></td>
</tr>
</tbody>
</table>

The level of perception on work environment among employees of national government agency in Davao Region was high in all indicators, including physical, psychological, and social aspects. This suggests that the organization is successful in providing a positive work environment that encourages employees to perform at their best (Kanto et al., 2020). The findings also support the study of Maidaryanti et al. (2021) which found that a comfortable and pleasant work environment can motivate employees to work properly and improve work efficiency. The work environment encompasses everything that can influence employees in performing their tasks (Widodo et al., 2021; Putri, 2023).

One researcher observed that the quality of the work environment can significantly affect the productivity and performance of employees within an organization (Taheri et al., 2020). Research shows that a work environment that is not conducive to the well-being of employees can have a detrimental effect on their physical and mental health, as well as their work output (Hafeez et al., 2019). For example, a study conducted by Wardani et al. (2020) found that a poor working environment can lead to negative outcomes such as frequent illness, increased stress levels, difficulty concentrating, and decreased productivity among workers. Thus, to avoid such negativity, the organizations should prioritize creating a positive work environment that fosters employee well-being and facilitates productivity (Solekah & Rizalie, 2022; Putri, 2023) and service quality (Purnawan, Jasfar, & Hady, 2019).
Employee Perception on Human Resource Practices in a Government Agency in Davao Region

Table 2 presented the result of the level of perception on human resource practices of National Government Employees, with the indicators arranged in descending order based on their mean ratings. The overall mean for all indicators was 4.10, indicating a high level of agreement among respondents, with a standard deviation of 0.58. The Recruitment and Hiring indicator received the highest mean rating of 4.18, indicating a positive perception among respondents of the organization’s recruitment and hiring practices. The standard deviation of 0.67 suggested that the responses were relatively consistent for this indicator. The Evaluation and Supervision indicator received the second-highest mean rating of 4.14, which indicated a positive perception among respondents regarding the organization’s evaluation and supervision practices. The standard deviation of 0.63 suggested that the responses were also relatively consistent for this indicator.

The Training and Development indicator received a mean rating of 4.05, which indicated a positive perception among respondents regarding the organization’s training and development practices. However, the standard deviation of 0.68 suggested that respondents had more varied perceptions of this indicator compared to the first two.

The Benefits and Compensation indicator received the lowest mean rating of 4.01, indicating a positive perception among respondents of the organization’s benefits and compensation practices. However, the standard deviation of 0.71 suggested that there was more variability in respondents’ perceptions of this indicator compared to the other three.

Table 2: Level of Employee Perception on Human Resource Practices in a Government Agency

<table>
<thead>
<tr>
<th>Indicators</th>
<th>SD</th>
<th>Mean</th>
<th>Descriptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment and Hiring</td>
<td>0.67</td>
<td>4.18</td>
<td>High</td>
</tr>
<tr>
<td>Training and Development</td>
<td>0.68</td>
<td>4.05</td>
<td>High</td>
</tr>
<tr>
<td>Benefits and Compensation</td>
<td>0.71</td>
<td>4.01</td>
<td>High</td>
</tr>
<tr>
<td>Evaluation and Supervision</td>
<td>0.63</td>
<td>4.14</td>
<td>High</td>
</tr>
<tr>
<td>Overall</td>
<td>0.58</td>
<td>4.10</td>
<td>High</td>
</tr>
</tbody>
</table>

The results of this study on the human resource practices of employees in a government agency in Davao Region indicated a positive perception among respondents regarding the statement presented on human resource practices. The respondents generally agreed that the statement was often evident and/or manifested, indicating that it accurately represented their experiences within the organization. The high level of agreement could be attributed to the consistently high ratings given by the respondents on all indicators.

Likewise, the human resource (HR) practices at the field offices of the Department of Environment and Natural Resources in Davao Region was high in all its indicators: recruitment and hiring, training and development, benefits and compensation, evaluation and supervision. The data revealed that employees had described a high level of agreement. This indicates a positive perception among respondents regarding the statement presented on human resource practices. This finding supports the study of Ali, Hussain, and Khan (2020) and Gürlek and Uygur (2021) that if employees perceive human resource practices in their organization positively, they will strive to exhibit attitudes and behaviors that are consistent with the organization’s objectives.
Recent study has shown that employees are valuable assets to organizations, contributing significantly to organizational performance (Pandey, 2020; De Clercq et al., 2021). Consequently, prioritizing effective human resource practices is crucial to maximize the value that employees bring to the organization and ensure long-term organizational success (Ali, Sharhan, & Alsaedi, 2021). For example, Khassawneh (2018) argues that recruitment and selection is critical for attracting and hiring the right employees, while Jawaad et al. (2019) highlight that training and development is crucial for enhancing employees’ skills and knowledge and keeping them up-to-date with new technologies and best practices.

Adnan, Zarrar, and Zaffar (2021) suggest that benefits and compensation is essential for attracting and retaining talented employees and motivating them to perform at their best, and Al-Jedaia and Mehrez (2020) examine evaluation and supervision, which is critical for providing employees with feedback, coaching, and support to improve their performance and achieve organizational goals. Furthermore, several studies have shown that effective human resource practices can improve the performance of organization (Mahmood et al., 2019), and employees (Ali, 2019; Aboramadan et al., 2020), making them a source of competitive advantage in the organization (Ahmad, Matthew, Muhammad, Rehman, & W, 2019; Sabuhari & Irawanto, 2020).

Moreover, the high level of agreement among respondents indicates that the employees received what they expected from their agency, which is consistent with the findings of Ray et al. (2021) in the US that a satisfied and happy employee is more likely to be committed to the organization. Conversely, organizations with low compensation, poor working conditions, and a lack of career development and training are likely to experience low employee retention rates and high employee turnover rates (Van Driessche, 2020).

Employee Perception on Organizational Culture in a Government Agency in Davao Region

Table 3 presented the descriptive statistics of the organizational culture of employees in national government agency in Davao Region, as perceived by respondents. The overall mean score of 4.18 (SD=0.50) indicated that the respondents generally perceived a high level of organizational culture. The results of the study indicated that the respondents perceived employees in national government agency in Davao Region to have high levels of mission (M = 4.30, SD = 0.55), consistency (M = 4.21, SD = 0.52), and involvement (M = 4.18, SD = 0.55) in their organizational culture.

However, adaptability received a slightly lower mean score (M = 4.05, SD = 0.54). These findings suggested that the aspects of the organizational culture that were particularly strong were mission, consistency, and involvement, while adaptability may need improvement. The standard deviations for all four indicators indicated that there was some variability in the responses, suggesting that the respondents had differing perceptions of the organizational culture.

Overall, the results suggested that the respondents generally agreed that the statements accurately represented their experiences within the organization, and that the measures of the organizational culture’s indicators were often evident and or manifested within the organization. The high level of organizational culture can be attributed to the respondents’ high ratings on all indicators.
Table 3: Level of Employee Perception on Organizational Culture in a Government Agency

<table>
<thead>
<tr>
<th>Indicators</th>
<th>SD</th>
<th>Mean</th>
<th>Descriptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>0.55</td>
<td>4.18</td>
<td>High</td>
</tr>
<tr>
<td>Consistency</td>
<td>0.52</td>
<td>4.21</td>
<td>Very High</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.54</td>
<td>4.05</td>
<td>High</td>
</tr>
<tr>
<td>Mission</td>
<td>0.55</td>
<td>4.30</td>
<td>Very High</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>0.50</strong></td>
<td><strong>4.18</strong></td>
<td><strong>High</strong></td>
</tr>
</tbody>
</table>

The high level of organizational culture in terms of mission, consistency, involvement, and adaptability is an indication that the organizational culture at DENR Davao Region is strong, which can have several significant implications for the organization and its employees. This finding is consistent with the study conducted by Pathiranage (2019), which concluded that a strong organizational culture enhances the effectiveness of employees and the organization, leading to increased levels of productivity and engagement and, ultimately, contributing to an overall improvement in the organization’s success.

Furthermore, the findings are in line with the study of Novryanto (2019) which suggests that a strong organizational culture has a significant impact on the strategies adopted to achieve organizational goals. Similarly, the study conducted by Rosalina et al. (2023) provides evidence that a strong organizational culture can motivate employees not only to innovate and maintain high-quality standards but also to establish harmonious relationships with their colleagues and work effectively and efficiently, contributing positively to their work environment and the overall success of the organization. This is further supported by Budi and Abidin (2021), who argue that a strong organizational culture has a significant impact on employees’ behavior, particularly in providing quality services to clients, leading to increased work productivity.

On the other hand, a weak culture can lead to high turnover, poor customer relations, passivity, and disorientation (Ssemugenyi, Asumwa, & Kazibwe, 2020), resulting in decreased performance levels, employee morale, and productivity (Alkhodary, 2023; Vernadeth, Anindita, & Aida, 2020), all of which can be detrimental to organizational success.

Moreover, the high level of organizational culture at DENR Davao Region denotes that a majority of the respondents agree that the statements described in all indicators are often true, and accurately represent their experiences and attitudes in various situations. The findings support the study of Palma-Alicer, Ligan, and Bandiola (2022) that while employees generally appreciated the culture within their organization, some aspects need improvement, urging leaders to enhance them for everyone’s benefit. Consequently, organizational culture is crucial for sustainability (Gutterman, 2020) and job satisfaction (Paais & Pattiruhu, 2020), job performance (DP and Riana, 2020) and service quality (Karakasnaki, Psomas, & Bouranta, 2019).

In addition, the high level of organizational culture in terms of mission realized the contention of Budi and Abidin (2021) that mission serves as the driving force behind every employee in the organization, providing clear direction, motivation, and a guide for decision-making and goal setting, ultimately leading to increased work performance and the achievement of organizational goals.
Service Quality of Employees in a Government Agency in Davao Region

Table 4 presented the descriptive results of the assessment of service quality provided by National Government Employees, using five indicators: reliability, responsiveness, assurance, empathy, and tangibles. The mean scores ranged from 3.94 to 4.61, with an overall mean of 4.41 (SD=0.51), indicating a high level of agreement among respondents.

The four indicators, namely, responsiveness ($\bar{x}=4.61$, SD=0.52), assurance ($\bar{x}=4.53$, SD=0.54), reliability ($\bar{x}=4.51$, SD=0.60), and empathy ($\bar{x}=4.48$, SD=0.61), received very high assessment by the respondents. This suggested that they perceived the National Government Employees’ service quality to be consistent and reliable, with a high level of assurance and empathy in interactions with service providers. However, the tangibles indicator received a lower mean score of 3.94 (SD=0.80), indicating that respondents perceived physical aspects of service quality, such as facilities and equipment, to be less consistent compared to other indicators. This suggested that the physical environment of the service provision may require improvement.

Overall, the results suggested that respondents strongly agreed that the statements are always evident and manifested, indicating it accurately represented their experiences within the organization. The very high level of service quality can be attributed to the respondents’ high ratings on all indicators except for tangibles. Organizations may need to focus on improving the physical environment to ensure that the service quality is consistent across all indicators.

Table 4: Level of Service Quality of Employees in a Government Agency

<table>
<thead>
<tr>
<th>Indicators</th>
<th>SD</th>
<th>Mean</th>
<th>Descriptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>0.60</td>
<td>4.51</td>
<td>Very High</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>0.52</td>
<td>4.61</td>
<td>Very High</td>
</tr>
<tr>
<td>Assurance</td>
<td>0.54</td>
<td>4.53</td>
<td>Very High</td>
</tr>
<tr>
<td>Empathy</td>
<td>0.61</td>
<td>4.48</td>
<td>Very High</td>
</tr>
<tr>
<td>Tangibles</td>
<td>0.80</td>
<td>3.94</td>
<td>High</td>
</tr>
<tr>
<td>Overall</td>
<td>0.51</td>
<td>4.41</td>
<td>Very High</td>
</tr>
</tbody>
</table>

The overall result of the service quality of DENR employees in Davao Region was high in reliability, responsiveness, assurance, empathy, and tangibles. This suggests that employees in DENR Davao Region have demonstrated high competence and professionalism in delivering services to their clients, which can benefit the organization. These results align with the idea presented by Ramya, Kowsalya, and Dharanipriya (2019) that service quality is essential for an organization’s success and survival.

Moreover, Rusli et al. (2021) found that the quality of service is crucial because it has an immediate effect on the organization’s reputation. Significantly, service quality can impact organizational performance (Awino, 2018, Gantsho & Sukdeo, 2018). Thus, it is essential for organizations to focus on both improving and maintaining high levels of service quality and to consistently monitor and check the performance of the employees in this regard.

In addition, the high level of service quality is due to employee loyalty (Ansari, 2021). This supports the study conducted by Tomic, Tesic, Kuzmanovic, and Tomic (2018) and Zakaria, Mohamad, Abd
Majid, Aziz, and Rashid (2019) found that when employees are loyal to their organization, they are more likely to be committed to their work, strive to provide high-quality services to their customers, and help the organization achieve its goals and objectives.

Furthermore, research showed that employee loyalty can be attributed to a positive working environment (Supit, Lapian, & Gunawan, 2022), effective human resource practices (Ahmed and Singh, 2020), and a supportive organizational culture (Pramudita, Suyono, and Elisabeth, 2022) that they experience within their workplace.

**Correlation between the Exogenous Latent Variables and Service Quality of Employees in a Government Agency**

Table 5 showed the correlation test results for work environment, human resource practices, and organizational culture. The basis of significance was p<0.05. These variables are considered latent because they cannot be directly observed and are only represented by the manifest variables presented in Tables 1 to 3. The endogenous latent variable in this study was service quality. Again, this variable is observable only through its manifest variables displayed in Table 4.

The results presented in Table 5 confirmed a significant correlation between the three exogenous variables (work environment, human resource practices, and organizational culture) and service quality, thereby rejecting the null hypothesis of no significant relationships. This result indicated that each of these factors had played a critical role in determining service quality. Meanwhile, organizational commitment and service quality had a correlation coefficient of .800 at p-value .000. This indicated that the increase in organizational culture through its manifest variables, namely, involvement, consistency, adaptability, and mission had also increase service quality.

Similarly, the increase in human resource practices also increased service quality, as indicated by its correlation coefficient of .659, with a p-value of .000. The same was true for the work environment. The correlation coefficient between the work environment and service quality (r=.599; p-value=.000) suggested that service quality also tended to increase as the work environment improved. Furthermore, the significant relationship between the variables was supported by a two-tailed test, indicating that the mean scores were significant in both the upper and lower tails of the distribution. The two-tailed test established whether the mean was significantly greater than X and lower than X, resulting in a p-value of less than 0.05. Therefore, it was considered significant.

**Table 5: Significance of the Relationship between the Exogenous Latent and Endogenous Latent Variables**

<table>
<thead>
<tr>
<th>Exogenous Variables</th>
<th>REL</th>
<th>RES</th>
<th>ASS</th>
<th>EMP</th>
<th>TAN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment</td>
<td>.489*</td>
<td>.464*</td>
<td>.501*</td>
<td>.475*</td>
<td>.553*</td>
<td>.599**</td>
</tr>
<tr>
<td>Human Resource Practices</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>.560*</td>
<td>.520*</td>
<td>.534*</td>
<td>.538*</td>
<td>.586*</td>
<td>.659**</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>.753*</td>
<td>.668*</td>
<td>.675*</td>
<td>.695*</td>
<td>.582*</td>
<td>.800**</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

** the correlation is significant at the 0.01 level (2-tailed)**
Pearson’s correlation tests were used to examine the relationships between the exogenous variables (work environment, human resource practices, and organizational culture) and the endogenous variable (service quality). Results showed significant and positive correlations between work environment and service quality, human resource practices and service quality, and organizational culture and service quality. Specifically, the correlations were strong and robust, indicating that service quality tends to increase as work environment, human resource practices, and organizational culture improve. These findings confirm previous research that has identified a significant relationship between these variables.

For example, Zam, Nongkeng, Mulat, Ardian Priyambodo, Yusriadi, Nasirin, and Kurniawan, (2021) and Solekah and Rizalie (2022) found a significant and positive relationship between the work environment and service quality. This is consistent with the findings of Solekah and Rizalie (2022) which found that a better work environment significantly influences higher service quality, and validates the results of Purnawan, Jasfar, and Hady (2019) that improving the work environment can boost the quality of services offered by employees in the organization.

Similarly, Jogarao & Krishna et al. (2018) found that human resource practices significantly influence service quality. This finding supports the proposition of Ibrahim (2020) that a positive correlation exists between human resource practices and service quality, emphasizing that there is a need for organizations to prioritize training and development programs, and keep up with the latest advancements in training techniques to enable employees to acquire new skills and knowledge, leading to improved performance and enhanced service quality.

Furthermore, there is a significant positive relationship between organizational culture and service quality, as demonstrated by the p-value being less than the level of significance and the r-value indicating a positive result. This relationship is further supported by the findings of several studies, including those conducted by Abu-Alhaija, Yusof, Hashim, and Jaharuddin (2018); Gantsho & Sukdeo (2018); Jaya, Hafasnuddin, and Majid (2019); Al-Otaibi, Yusof, and Ismailismail (2020); Alshemmari (2020); Egdair (2020); Pratomo (2020); and Ssemugenyi, Asumwa, and Kazibwe (2020) which found that organizational culture significantly influences service quality.

This significant relationship between organizational culture and service quality supports the findings of the study conducted by Nuraini, Riadi, Umanailo, Rusdi, Badu, Suryani, Irsan, Ismail, Pulhehe, and Hentihu (2019); Kanto et al., 2020; and Haryono et al. (2021) that improving an organization’s culture can lead to improved service quality provided by its employees and overall performance of the organization.

Regression Analysis on Work Environment, Human Resource Practices and Organizational Culture on Service Quality of Employees in a Government Agency

Presented in Table 6 was the significance of the influence of the work environment, human resource practices, and organizational culture on the service quality of national government employees, with a computed F-value of 234.638, an R-value of .800, an adjusted R2 value of .640, and a p-value of .000, which was lower than the .05 level of significance set in this study.

This result supported the alternative hypothesis, indicating that work environment, human resource practices, and organizational culture affect the service quality of government employees in Davao Region. Examining the unstandardized beta coefficients was necessary to determine which exogenous variables best influenced service quality. Work environment towards service quality revealed a beta of -.009. This meant that a unit increase in the work environment resulted in a -.009 increase in service quality.
Furthermore, human resource practices towards service quality revealed a beta of .018. This meant that a unit increase in human resource practices enticed a .018 increase in the quality of service of employees. Similarly, organizational culture to service quality exposed a beta of .815. This suggested that a unit increase in organizational culture resulted in a .815 rise in service quality. Therefore, it was the organizational culture that best predicted or influenced the service quality of national government employees among the three exogenous variables, and because its p-value was smaller than the 0.05 p-value set in the study.

The regression model showed that the combined influence of the three factors on service quality was at 64 percent. The model implied that work environment, human resource practices, and organizational culture could explain the variation in service quality of national government employees by 64% (R2=.640). In contrast, the other 36% could be attributed to other factors not covered in this study.

Furthermore, it is worth noting that while all three predictor variables such as work environment, human resource practices, and organizational culture contribute to service quality, organizational culture plays a more significant role than the others. In the singular capacities of the exogenous variables, only organizational culture greatly influences the endogenous variable.

Table 6: Significance on the Influence of Work Environment, Human Resource Practices and Organizational Culture on Service Quality of Employees in a Government Agency

<table>
<thead>
<tr>
<th>Exogenous Variables</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.959</td>
<td>7.311</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Work Environment</td>
<td>-.009</td>
<td>-.010</td>
<td>-.197</td>
<td>.844</td>
</tr>
<tr>
<td>Human Resource Practices</td>
<td>.018</td>
<td>.021</td>
<td>.350</td>
<td>.727</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>.815</td>
<td>.790</td>
<td>14.495</td>
<td>.000</td>
</tr>
</tbody>
</table>

R = .800
R² = .640
ΔR = .637
F = 234.638
ρ = .000

The findings of Jamasali-Abdula, Genuba, and Lovina Jr. (2022) stated that all the predictor variables require one another to substantially affect the endogenous variable. Thus, it is important for organizations to focus on improving their work environment, human resource practices, and organizational culture so that the employees can provide better service quality to their clients and, in turn, enhance the overall performance of the organization.
Establishing the Best Fit Structural Model for Service Quality of Employees in a Government Agency in Davao Region

This section presents the findings from the investigation into the relationships among the variables under study. Multiple hypothesized models were examined in an effort to determine the most suitable model. Additionally, this section explores into a discussion of these models and their significance in illustrating how exogenous variables influence the performance of endogenous variables.

Four alternative models were tested in an attempt to obtain the best-fit model of service quality. The conclusion of the investigation of the goodness of fit measures of these five structural models was presented in Table 7. The hypothesized structural Model 5, as presented in Figure 2, was identified as the best-fit model for the study. It encompassed the level of state of perception regarding the work environment, the level of perception concerning human resource practices, and the level of organizational culture as latent variables expected to exert influence on the latent endogenous variable pertaining to the level of service quality among employees in the government agency in Davao Region.

As presented in Table 7, all the indices for the Model 5 consistently fell within the acceptable ranges. The Chi-square divided by the degrees of freedom equaled 1.341 with a P-value of 0.127, indicating a very good fit to the data. Notably, this result was strongly supported by an RMSEA index of 0.029, which was less than 0.05, a significant level, along with its corresponding P-close value of 0.913, exceeding the 0.05 threshold. Similarly, other indicators such as Normed Fit Index, Tucker-Lewis Index, and Comparative Fit Index consistently indicated a very good fit model, as all their values met the specified criteria.

Table 7: Summary of Fit Measures for Five Generated Models

<table>
<thead>
<tr>
<th>Model</th>
<th>P-value (&gt;0.05)</th>
<th>CMIN / DF (0&lt;value&lt;2)</th>
<th>GFI (&gt;0.95)</th>
<th>CFI (&gt;0.95)</th>
<th>NFI (&gt;0.95)</th>
<th>TLI (&gt;0.95)</th>
<th>RMSEA (&lt;0.05)</th>
<th>P-close (&gt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.000</td>
<td>16.456</td>
<td>.696</td>
<td>.751</td>
<td>.739</td>
<td>.704</td>
<td>.197</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.000</td>
<td>11.310</td>
<td>.786</td>
<td>.837</td>
<td>.824</td>
<td>.802</td>
<td>.161</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>.000</td>
<td>9.245</td>
<td>.788</td>
<td>.868</td>
<td>.855</td>
<td>.842</td>
<td>.144</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>.000</td>
<td>8.016</td>
<td>.819</td>
<td>.888</td>
<td>.874</td>
<td>.865</td>
<td>.133</td>
<td>.000</td>
</tr>
<tr>
<td>5</td>
<td>.127</td>
<td>1.341</td>
<td>.985</td>
<td>.998</td>
<td>.991</td>
<td>.996</td>
<td>.029</td>
<td>.913</td>
</tr>
</tbody>
</table>

Legend:

<table>
<thead>
<tr>
<th>CMIN/DF</th>
<th>–</th>
<th>Chi Square/Degrees of Freedom</th>
<th>NFI</th>
<th>–</th>
<th>Normed Fit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFI</td>
<td>–</td>
<td>Goodness of Fit Index</td>
<td>TLI</td>
<td>–</td>
<td>Tucker-Lewis Index</td>
</tr>
<tr>
<td>RMSEA</td>
<td>–</td>
<td>Root Mean Square of Error Approximation</td>
<td>CFI</td>
<td>–</td>
<td>Comparative Fit Index</td>
</tr>
</tbody>
</table>
As shown in Figure 2, results revealed that the latent variable “human resource practices,” as measured by indicators such as training and development and evaluation and supervision, had a significant relationship with service quality and organizational culture. Conversely, indicators such as recruitment and hiring and benefits and compensation showed no significant correlation.

Additionally, the model unveiled that the work environment, represented by indicators such as physical work environment and social work environment, exhibited a significant relationship with both organizational culture and service quality. In contrast, the psychological work environment indicator did not demonstrate any significance. Furthermore, the components of service quality, including reliability, responsiveness, and assurance, displayed a significant correlation, while empathy and tangibles did not.
The findings of this study have rejected the null hypothesis that no model exists to best fit the service quality of national government employees in Davao Region. After evaluating the five hypothesized models and using the AMOS program, the developed Model 5 was identified as the best-fit structural model for service quality. However, some manifest variables in the hypothesized model were not included as predictors because the program removed certain indicators that did not meet the minimum acceptable value of 0.70 for outer loadings (Hair et al., 2021a; Hair et al., 2021b).

Thus, the best-fit structural model of service quality is the combined effect of exogenous variables with specific manifest variables. For instance, under work environment, the manifest variables are physical work environment (PhWE) and social work environment (SWE). Under human resource practices are training and development (TAD) and evaluation and supervision (EAS). For organizational culture, the manifest variables are adaptability (ADA), consistency (CON), and involvement (INV). The remaining manifest variables for service quality are reliability (REL), responsiveness (RES), and assurance (ASS).

Furthermore, Table 8 depicted the direct and indirect effects of the independent variables on service quality. With Figure 2 as a reference, Table 8 indicated that the work environment had a direct effect on service quality, and its total effect on service quality was 1.194 or 119.4%, signifying a significant impact on service quality. Additionally, human resource practices had a direct negative effect on service quality, with a value of -.737 or -73.7%, without passing through a mediator.

Table 8: Direct and Indirect Effects of the Independent Variables on Service Quality of Employees in a Government Agency on Best Fit Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect on Service Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment</td>
<td>1.194</td>
<td>.000</td>
<td>1.194</td>
</tr>
<tr>
<td>Human Resource Practices</td>
<td>-.737</td>
<td>.000</td>
<td>-.737</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

The variable organizational culture had no direct or indirect effect on service quality. In cases of direct effects, it implied that no intermediary factors played a role in the action. Conversely, in instances of indirect effects, the action passed through mediator variables before influencing the dependent variable. A negative effect indicated that mediator variables had mitigated the impact of one variable on the dependent variable.

Additional data in Table 9 further elucidated the information presented in Table 8 and Figure 2. The regression weights in Table 9 indicated which manifest variables, also referred to as indicators, significantly influenced and served as predictors of service quality. For instance, work environment, as manifested by physical work environment (PHWE) and social work environment (SWE), emerged as predictors of service quality. Furthermore, human resource practices, as represented by training and development (TAD) and evaluation and supervision (EAS), also proved to be predictors of service quality. It is worth noting that work environment and human resource practices could only predict service quality through specific manifest variables, namely reliability (REL), responsiveness (RES), and assurance (ASS).
Table 9: Estimates of Variable Regression Weights in Generated Best Fit Model

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>Beta</th>
<th>C.R.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service_Quality &lt;-- Human_Resource_Practices</td>
<td>-.737</td>
<td>.544</td>
<td>-.678</td>
<td>-1.355</td>
<td>.175</td>
</tr>
<tr>
<td>Organizational_Culture &lt;-- Human_Resource_Practices</td>
<td>.195</td>
<td>.148</td>
<td>.209</td>
<td>1.316</td>
<td>.188</td>
</tr>
<tr>
<td>Organizational_Culture &lt;-- Work_Environment</td>
<td>.497</td>
<td>.110</td>
<td>.721</td>
<td>4.521</td>
<td>***</td>
</tr>
<tr>
<td>Service_Quality &lt;-- Work_Environment</td>
<td>1.194</td>
<td>.408</td>
<td>1.485</td>
<td>2.925</td>
<td>.003</td>
</tr>
<tr>
<td>REL &lt;-- Service_Quality</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>.935</td>
</tr>
<tr>
<td>RES &lt;-- Service_Quality</td>
<td>.767</td>
<td>.033</td>
<td>.821</td>
<td>22.954</td>
<td>***</td>
</tr>
<tr>
<td>ASS &lt;-- Service_Quality</td>
<td>.819</td>
<td>.033</td>
<td>.857</td>
<td>24.934</td>
<td>***</td>
</tr>
<tr>
<td>TAD &lt;-- Human_Resource_Practices</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>EAS &lt;-- Human_Resource_Practices</td>
<td>1.049</td>
<td>.060</td>
<td>.854</td>
<td>17.595</td>
<td>***</td>
</tr>
<tr>
<td>ADA &lt;-- Organizational_Culture</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>.889</td>
</tr>
<tr>
<td>CON &lt;-- Organizational_Culture</td>
<td>1.050</td>
<td>.033</td>
<td>.967</td>
<td>31.855</td>
<td>***</td>
</tr>
<tr>
<td>INV &lt;-- Organizational_Culture</td>
<td>1.123</td>
<td>.044</td>
<td>.978</td>
<td>25.691</td>
<td>***</td>
</tr>
<tr>
<td>PhWE &lt;-- Work_Environment</td>
<td>.679</td>
<td>.042</td>
<td>.757</td>
<td>16.107</td>
<td>***</td>
</tr>
<tr>
<td>SWE &lt;-- Work_Environment</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>.832</td>
</tr>
</tbody>
</table>

Legend:

| PHWE-physical work environment                   | CON-consistency |
| PSWE-psychological work environment              | ADA-adaptability |
| SWE-social work environment                      | MIS-mission     |
| RAH-recruitment and hiring                       | REL-reliability |
| TAD-training and development                     | RES-responsiveness |
| BAC-benefits and compensation                    | ASS-assurance   |
| EAS-evaluation and supervision                   | EMP-empathy    |
| INV-involvement                                 | TAN-tangibles  |

Furthermore, during the data analysis, two indicators of service quality (empathy and tangibles) were eliminated from the model because they did not meet the standard outer loading requirement of being greater than 0.70.
5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion
The application of the structural equation model increased the reliability and thoroughness of this research. The findings showed that all work environment indicators are at high levels. Thus, the level of employee perception on work environment in national government agency in Davao Region is high. In terms of human resource practices, all the indicators are high. This generated a high level of employee perception on Human Resource Practices in National Government Agency in Davao Region. For the Organizational Culture in National Government Agency, consistency and mission are very high, while involvement and adaptability are high. Overall, the level of employee perception on Organizational Culture in National Government Agency in Davao Region is high. In terms of service quality, all indicators except the tangibles are very high; thus, the level of service quality of National Government Employees is very high.

In addition, work environment, human resource practices, and organizational culture all show a significant and positive correlation to service quality. Among the five models examined, only Model 5 met the criteria for a perfectly fitting model, making it the most suitable structural model. This model revealed that work environment, human resource practices, and organizational culture had a substantial influence on the service quality provided by employees in the government agency in Davao Region. This finding aligns with Social Exchange Theory (1961), suggesting that positive social exchanges, represented by a favorable work environment, effective HR practices, and a strong organizational culture, result in high-quality service provision, benefiting both employees and the organization.

Recommendations
Based on the findings and conclusions mentioned above, it is recommended to continuously monitor and improve the work environment. Improving the work environment can positively impact employee well-being and satisfaction, which can in turn improve service quality (Solekah & Rizalie, 2022; Purnawan, Jasfar, & Hady, 2019). By regularly monitoring and improving the work environment through employee feedback surveys, professional development opportunities, safe and comfortable working conditions, and promoting work-life balance, DENR can ensure that employees are motivated and engaged in delivering high-quality services to the clients.

Additionally, enhancing human resource practices is essential to attract and retain talented employees, ultimately leading to higher service quality. Inclusive recruitment and hiring practices, comprehensive training and development programs, competitive compensation and benefits packages, and regular feedback and performance evaluations are key strategies that DENR can adopt to equip employees with the necessary skills and resources for delivering high-quality services (Khassawneh, 2018; Jawaad, Amir, Bashir, & Hasan, 2019; Adnan, Zarrar, & Zaffa, 2021).

Fostering a strong organizational culture is equally vital, as it positively impacts employee effectiveness and overall organizational success, resulting in higher service quality (Budi & Abidin, 2021; Ssemugenyi, Asumwa, & Kazibwe, 2020; Alkhodary, 2023; Vernadeth, Anindita, & Aida, 2020; Gutterman, 2020; Paais & Pattiruhu, 2020; Soomro & Shah, 2019; DP & Riana, 2020; Karakasnak, Psomas, & Bouranta, 2019). By promoting its mission and values, encouraging employee involvement in decision-making, and remaining adaptable to changing needs, DENR can establish a culture of excellence that motivates employees to provide high-quality services.

Furthermore, implementing a regular service quality monitoring system is recommended. By collecting customer feedback through surveys and conducting performance evaluations, DENR can ensure consistent high service quality and identify areas for improvement, leading to higher client satisfaction and a stronger organizational reputation.
Lastly, to improve future research and gain a comprehensive understanding of service quality in DENR, it is crucial to address the limitations of this study. Future research efforts should consider expanding the scope by including additional variables and employing diverse data collection methods, such as qualitative investigations. Moreover, extending the geographical coverage to include other regions can provide a more comprehensive and accurate depiction of service quality in DENR. Addressing these limitations will contribute to a more thorough understanding of service quality within the organization.
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