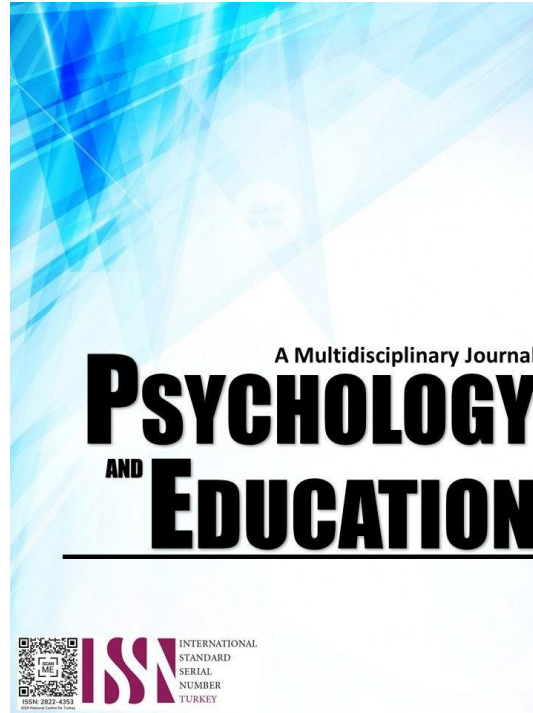


# **EFFICIENCY, COLLABORATION, PROCESS AND EFFECTIVENESS OF PURCHASING DEPARTMENT ON HIGHER EDUCATION INSTITUTION**



**PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL**

Volume: 56

Issue 1

Pages: 1-24

Document ID: 2026PEMJ5437

DOI: 10.70838/pemj.560101

Manuscript Accepted: 03-25-2026

## Efficiency, Collaboration, Process, and Effectiveness of Purchasing Department on Higher Education Institution

Chrislyn T. Aprosta,\* Cristine A. Geroy, Nenita I. Prado  
For affiliations and correspondence, see the last page.

### Abstract

This study investigated the efficiency, collaboration, process, and effectiveness of the purchasing department in a higher education institution. Specifically, it examined efficiency in terms of workload, time management, and communication; collaboration in terms of feedback and solution; and process in terms of procedures, protocols, and orientation. It also assessed overall employee effectiveness and explored the relationships among these variables. A descriptive-correlational and causal research design was employed, involving non-teaching employees selected through stratified random sampling from three campuses of Liceo de Cagayan University. Data were collected using structured and researcher-made survey questionnaires and were analyzed using descriptive statistics, Pearson correlation, and regression analysis. Results showed moderate to high levels of efficiency, collaboration, and process practices, which positively influenced employee effectiveness. Correlation analysis revealed significant positive relationships among efficiency, collaboration, process, and effectiveness. Regression analysis identified time management, communication, and feedback as the strongest predictors of employee effectiveness. However, challenges related to workload imbalance, communication gaps, and inconsistent procedures were found to affect performance. The findings indicate the need for streamlined purchasing processes, improved feedback mechanisms, and clearer protocols to strengthen operational efficiency, collaboration, and departmental effectiveness. The study provides practical insights for administrators, purchasing personnel, and policymakers in higher education.

**Keywords:** *efficiency, collaboration, process, effectiveness, purchasing department*

### Introduction

The purchasing department often faces difficulties with effectiveness, efficiency, and teamwork that impact its overall performance. Slow approval processes and excessive bureaucracy in procurement can cause delays in obtaining essential resources, disrupting both academic and operational activities. Moreover, inconsistent purchasing practices due to the lack of standardized procedures across higher education departments prevent the institution from fully leveraging bulk purchasing opportunities and best practices. Collaboration challenges further exacerbate the situation, as differing priorities and communication gaps among employees, including faculty, administration, and finance, can lead to procurement strategies that do not effectively meet the institution's diverse needs.

In the study of Vogt et al. (2017) found that the acquisition of essential resources can be delayed due to inefficient procurement processes, which are often characterized by slow approval times and unwieldy bureaucratic procedures. Disorganized purchasing strategies and limited potential for cost savings through bulk purchases are the result of a lack of standardized practices across departments (Baker, 2016). Misaligned efforts that fail to meet the comprehensive needs of the institution can be exacerbated by collaboration issues, such as communication barriers and differing priorities among employees, including faculty and administrative staff (Keller, 2019).

According to a study by Kauffman et al. (2021), many universities struggle with outdated procurement systems that hinder timely decision-making and result in delays in acquiring necessary goods and services. This inefficiency not only affects operational effectiveness but also leads to increased costs due to missed opportunities for bulk purchasing or strategic sourcing. Moreover, the lack of standardized processes across different departments can create confusion and inconsistency in purchasing practices. A report by Johnson and Smith (2022) highlights that varying departmental policies can lead to duplication of efforts and miscommunication among staff members, further complicating collaborative efforts within the institution. The integration of technology into procurement processes has been slow, limiting real-time communication and data sharing among departments. As noted by Lee et al. (2023), many institutions have yet to adopt comprehensive e-procurement solutions that facilitate collaboration across various units, resulting in siloed operations that undermine strategic alignment with institutional goals.

Collaborative efforts across departments have been proven to enhance resource allocation and alignment with institutional goals, resulting in improved project outcomes (Johnson et al., 2024). Despite these advancements, purchasing departments must remain adaptable in the face of challenges such as budget constraints and supply chain disruptions, with agile procurement practices proving crucial for resilience (Smith & Brown, 2023).

Despite the advancements in purchasing departments within higher education institutions, several gaps remain that hinder their overall efficacy. There is often a disconnect between procurement strategies and institutional goals, with purchasing departments not fully aligned with academic needs and priorities (Johnson et al., 2024). This misalignment can lead to inefficient resource allocation and missed opportunities for cost savings.

Furthermore, while sustainability initiatives are increasingly prioritized, the lack of standardized metrics for measuring the impact of ethical sourcing complicates efforts to assess the effectiveness of these initiatives (Tharp & Davis, 2023). However, there are limited studies regarding the process and effectiveness in the purchasing department. Reforms in higher education have led to a focus on effectiveness, yet criteria for evaluating this effectiveness remain underexplored (Hagerer, 2019). Key factors such as communication, decision-making quality, and motivation are essential for enhancing organizational performance.

This study explored employees' understanding of efficiency, collaboration, process, and effectiveness of the purchasing department in Liceo de Cagayan University. By examining these dimensions, the researcher sought to identify the strengths and weaknesses of the purchasing department and provide insights that could enhance the design and delivery of work. The findings of this research contributed to the broader discourse on the effectiveness of the purchasing department in higher education institutions, particularly in terms of efficiency, collaboration, and process, for the personnel in charge. It also offered educational administrators valuable input to inform their strategic decisions in enhancing institutional representation in addressing employees' requests.

## Research Questions

This study aimed to predict higher education institution employees' purchasing department effectiveness towards efficiency, collaboration, and process. Specifically, the study sought to answer the following questions:

1. What is the level of efficiency in terms of:
  - 1.1 workload;
  - 1.2 time management; and
  - 1.3 communication?
2. What is the level of collaboration in terms of:
  - 2.1 feedback; and
  - 2.2 solution?
3. What is the level of process in terms of:
  - 3.1 procedures;
  - 3.2 protocols; and
  - 3.3 orientation?
4. What is the level of effectiveness of employees in the purchasing department?
5. Is there a significant relationship between effectiveness and efficiency, collaboration, and the process of employees in the purchasing department?
6. Which of the variables best predicts the effectiveness of employees in the purchasing department?

## Methodology

### Research Design

The nature of the present research necessitated the use of descriptive, correlational, and causal study. Descriptive research was used to describe the characteristics of a population or phenomenon being studied. It did not answer questions about how or why things happened but rather focused on the what aspect (Creswell, 2014). Although the data in this type of study could be gathered qualitatively, it was frequently statistically examined, with relationships being found using statistics such as frequencies, percentages, and averages. In the context of this study, problems 1 to 4 required the use of a descriptive research design.

A correlational study is a type of research method used to determine the relationship between two or more variables. Instead of manipulating variables, researchers observed and measured them to identify patterns or associations (Fraenkel et al., 2019). The primary aim was to understand whether changes in one variable corresponded to changes in another, without implying a cause-and-effect relationship (Fraenkel et al., 2019).

The last problem was answered by a causal study, also known as causal research, which was a research method aimed at identifying and establishing cause-and-effect relationships between variables. This type of study typically involves manipulating one or more independent variables to observe the effect on one or more dependent variables (Creswell, 2014).

Since this study embraced the methodologies under the descriptive correlation and causal design, quantitative data were obtained first from the respondents through survey questionnaires.

### Respondents

The respondents included in this study were non-teaching employees from the three campuses of Liceo de Cagayan University. This study employed probability sampling using a stratified random technique to determine the sample size. By employing probability sampling, the researcher ensured that every element of a known population was included in the sample. The use of probability samples allowed for thorough analysis to evaluate the probability and potential for bias and error. Random selection involved choosing sample elements in a way that gave each individual in the population an equal chance of being selected. It was assumed that the characteristics of the sample reflected those of the entire population from which it was drawn. Therefore, the first step in selecting a sample was

defining the sample frame (Adwok, 2015).

One way to determine sample size was by using the method of stratified random sampling. This method involved dividing the population into smaller groups, or strata, based on similar characteristics. Then, a random sample was taken from each stratum and combined in proportion to the size of the stratum relative to the population (Qualtrics, 2021).

Utilizing the Raosoft sample size calculator was an easy process that helped researchers identify the suitable sample size for surveys based on particular criteria (Viegas, 2023). To calculate the sample size with the Raosoft tool, the researcher entered the total number of employees at Liceo de Cagayan University, which was 250, and indicated a confidence level of 95%. Additionally, the researcher set a margin of error at 5% and chose to keep the estimate distribution at 50%. Subsequently, the calculator provided the necessary sample size of 152 to achieve the desired confidence level and margin of error.

### **Instrument**

Data for this research study were collected from self-administered surveys. Four (4) sets of questionnaires were used to gather the data for this study to measure efficiency, collaboration, process, and effectiveness using a 5-point Likert scale.

A 5-point Likert Rating Scale was used to measure respondents' attitudes regarding the extent to which they agreed or disagreed with a particular statement (Losby & Wetmore, 2021). This scale was applied to assess agreement, likelihood, frequency, importance, and quality (Khandelwal, 2021). Respondents selected from five choices on a 5-point Likert scale: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Employees completed four (4) questionnaires. The first tool was the Efficiency Questionnaire, which evaluated the efficiency of purchasing staff at Liceo de Cagayan University using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The second instrument utilized in this study was the Collaboration Questionnaire, which assessed employee behavior in communication. The third tool measured the processes of the purchasing staff within their department. Finally, the study examined the effectiveness of the purchasing staff at Liceo de Cagayan University.

Once the quantitative data were gathered, they were processed and analyzed through descriptive statistics, including mean and standard deviation. Validity and reliability tests, along with correlation analysis, were conducted to explore the relationship between the variables. Furthermore, multiple regression analysis was employed to identify the predictors of effectiveness. The findings from the quantitative data analysis were explained, elaborated upon, and interpreted, followed by the presentation of the conclusions and overall interpretation. Additionally, the survey questionnaires developed by the researcher were verified by three (3) experts and tested for reliability, accuracy, and significance prior to the commencement of the actual study.

### **Procedure**

The investigator upheld the following procedures to obtain the desired data for this study.

Firstly, the instruments were prepared. Survey forms were generated for the participants, and each questionnaire had an identification number written in the upper left corner. Next, it was necessary to obtain approval from the Dean of the School of Business, Management, and Accountancy before distributing the survey to the intended participants and collecting data. The researcher personally delivered formal letters to the Dean or Administrators of each department to request authorization to distribute test surveys and questionnaires to the participants. These letters included the timeline for the execution of the study.

The third step involved meeting the participants on time. After receiving approval from the Dean of the School of Business, Management, and Accountancy, the researcher personally met with each respondent or communicated with them online. Informed consent forms were provided along with the survey forms. Establishing trust between the researcher and the participants was one of the fundamental principles of research ethics and involved a clear agreement. By ensuring proper distribution and presentation of the informed consent, participants willingly took part in the research with complete information about what it entailed and provided their consent before participating. They were informed about the study's procedures, risks, benefits, and the confidentiality of the information they provided.

The subsequent phase of data collection mainly involved preliminary activities before administering the survey questionnaires, during which ethical considerations in conducting research were observed. When it came to ethical considerations, the researcher needed to remember that ethics was a fundamental trait that needed to be nurtured to ensure the study was trustworthy and valid. Giving proper attention and importance to ethical considerations was essential, as they played a vital role in every research study. The researcher remained committed to the research's objective of conveying accurate information and preventing errors. Therefore, the researcher adhered to the specified protocol assessment indicators and steps, especially focusing on inclusion criteria, recruitment, safety, informed consent, risks, benefits, privacy and confidentiality of information, community considerations, and dissemination/data sharing plan statements, among others.

The research followed the principle of justice when selecting participants, ensuring a fair distribution of relevant measures for study participation. Predetermined inclusion and exclusion criteria were used to prevent bias. Participants were non-teaching employees of Liceo de Cagayan University, the research location, and willingly consented to take part in the study. Furthermore, participants were

chosen randomly based on the study's nature and objectives.

Additionally, it was clarified that the participants would not receive immediate, direct benefits from taking part in this research. Their involvement in this study helped the researcher assess their views on the effectiveness of the purchasing department at Liceo de Cagayan University and evaluate various organizational factors such as perspectives, communication, and workflow management.

In addition, the participants offered the researcher reliable and valid data regarding their work productivity and performance, which were used for policy-making and could influence the work environment. The benefits of this study went beyond what was provided to the employees of the Higher Education Institution (HEI) for whom the participants worked. By participating, they had the opportunity to voice their opinions on various issues related to their current working conditions.

There was no financial compensation for taking part in this study, and participants were not reimbursed for any related expenses. Prior to using the research tools, the researcher addressed transparency and conflicts of interest. Ensuring openness in the execution, reporting, and publication processes enhanced the integrity and credibility of the research findings. The researcher took measures to prevent bias and ensured that the characteristics of ethical research were not overshadowed by competing interests, whether financial or non-financial.

The survey questionnaires were distributed after obtaining the participants' consent. However, individuals were free to withdraw their consent at any time. If they chose to do so due to foreseeable reasons such as potential hazards, discomfort, or perceived negative impacts, the researcher respected their decision and selected other participants randomly.

The study involved randomly selecting potential participants from the pool of 350 teaching and non-teaching employees at Liceo de Cagayan University, using a method called stratified random sampling. Their honesty and cooperation were crucial as they responded to the questionnaires to ensure unbiased results. The researchers hoped that they would willingly share their perspectives and opinions.

While respondents had the option to provide their names in the questionnaire, they could also use a pseudonym if they preferred to remain anonymous. All questions, except for the name section, had a single response. They were required to fill in the necessary information in the provided space or select the appropriate response. Honest answers to every question were expected from all participants. The researcher collected all completed surveys and was available to address any concerns raised by the respondents.

During the survey administration, respondents were given sufficient time to complete the questionnaire and were encouraged to seek clarification on any questions. If they chose to answer the questionnaires at home, they were reminded that they could reach out for clarifications using the provided email address [ctaprosta@liceo.edu.ph](mailto:ctaprosta@liceo.edu.ph), or they could contact Dr. Dominic T. Polancos, MPA, LPT, Director of the Research Ethics Board of Liceo de Cagayan University, via email at [liceoreb@liceo.edu.ph](mailto:liceoreb@liceo.edu.ph) or by phone at +63 9275718184.

Participation in the research study was voluntary, and respondents were free to withdraw at any point during the study. Those who agreed to participate were asked to complete the survey questionnaire, which only took 10 to 15 minutes of their time.

When using the research questionnaire, the researcher ensured that each item did not show bias towards race, gender, sexual orientation, religion, politics, or culture. This study emphasized the importance of research in managing public education and aimed to strengthen research by considering purchasing department effectiveness and its relation to management variables, promoting evidence-based decision-making.

After completing the survey questionnaires, the instruments were collected, and the responses were kept confidential for academic purposes. The data were coded and stored securely, ensuring that no individual identities were used in any reports. Only essential personnel had access to any identifying information.

The researcher handled the respondents' answers confidentially and disposed of the data appropriately once finalized. The ethical standards of goodwill and respect were linked to the obligation to protect privacy and secrecy.

Respondents' personal information and details were used for academic purposes only, in compliance with the Data Privacy Act of 2012. All respondents were adequately oriented in terms of sharing and disseminating the research findings.

The findings of this study were shared through various means, including publications and research conferences. Attending academic events was a valuable way to stay updated with the latest studies and ideas in the education field. If there was an opportunity to publish this study in a journal, the researcher was willing to do so to increase discoverability and preserve the work in educational research archives.

### **Data Analysis**

The following statistical tools were used to make the analysis and interpretation of data easier:

For problems 1, 2, 3, and 4, the researcher employed descriptive statistical analysis, such as the mean and standard deviation, to quantify the level of efficiency, collaboration, process, and effectivity among purchasing department employees.

The mean (average) was considered the definitive and reasonable measure of central tendency (Bhandari, 2020). Using the mean, the



researcher answered statement of problems one to four. The researcher needed insight regarding how much variation existed in the responses from the respondents compared to the mean. For this reason, the researcher utilized standard deviation to quantify the data set's dispersion from the calculated mean (Bhandari, 2020), which was determined as the square root of the variance (Hargrave, 2021). The researcher discovered how the 250 employees' responses clustered around the mean or spread out.

For problem number 5, the researcher used Pearson's *r* to establish the relationship among the variables if the data were normally distributed; if not, the researcher used Spearman Rho or Kendall's Tau Correlation. The researcher applied correlation statistics, wherein, through this statistical tool, the degree of relationship among the variables was identified (Nickolas, 2021).

For problem number 6, the researcher used multiple linear regression to identify the variables that predict teacher burnout. The researcher will predict, determine, and characterize the relationship between various indicators of the independent variables perceived by the respondents and another variable: effectiveness. It is done statistically only using linear regression, wherein the degree and nature of an influence between domains are determined accordingly. This discovers whether a relationship or influence between the indicators exists at all (Devault, 2020; Beers, 2021). Using linear regression, the researcher answers the statement of problem number six (6) in this study.

## Results and Discussion

This section presents the data gathered from the conducted survey regarding the efficiency, collaboration, processes, and effectiveness of employees in the Purchasing Department of Liceo de Cagayan University. The purpose of this section is to analyze and interpret the results of the study, focusing on how various organizational factors, such as efficiency, collaboration, and process, relate to purchasing employee effectiveness.

### What is the level of efficiency in terms of workload, time management, and communication?

Table 1. *The efficiency of employees in terms of time management*

Statements	Mean	SD	Description	Interpretation
1. The purchasing department prioritize purchasing tasks effectively based on urgency and importance.	4.35	0.55	Agree	High
2. The purchasing department set clear goals for my purchasing activities each week.	4.31	0.53	Agree	High
3. The purchasing department allocate their time wisely across various purchasing tasks (e.g., sourcing, negotiations, order processing)	4.33	0.52	Agree	High
4. The purchasing department often complete purchasing tasks ahead of deadlines.	4.31	0.62	Agree	High
5. The purchasing department regularly review my purchasing schedule to stay on track	4.28	0.57	Agree	High
6. The purchasing department workload is manageable within the standard working hours provided by the university.	4.37	0.58	Agree	High
7. The purchasing department has established guidelines for effective time management practices.	4.29	0.56	Agree	High
8. I feel confident in purchasing department staff ability to manage multiple work simultaneously.	4.31	0.57	Agree	High
9. The purchasing department frequently meet deadlines without feeling rushed	4.33	0.58	Agree	High
10. The university provides adequate resources for improving staff productivity and time management skills.	4.39	0.56	Agree	High
Overall Mean	4.32	0.56	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.30)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 1 presents the efficiency of purchasing employees in terms of time management. As shown in the table, employees obtained the highest mean of (M= 4.39, SD= 0.56) for indicator 10, “The university provides adequate resources for improving staff productivity and time management skills”. Followed by indicator 6 “The purchasing department workload is manageable within the standard working hours provided by the university” (M= 4.37, SD= 0.58), and indicator 1 “The purchasing department prioritizes purchasing tasks effectively based on urgency and importance” (M=4.35, SD= 0.55). where all of the responses are clustered around the mean. The data suggested that the purchasing department employees recognized strong institutional support in terms of tools, training, and systems that enhanced their time management.

This confirmed that the employees in the purchasing department perceived their workload as realistic and attainable within official working hours. That task volume aligned with capacity, which was a critical factor in preventing burnout, promoting work-life balance, and maintaining long-term productivity. The result aligned with the study of Ruohoniemi et al. (2017), where effective time management was crucial for productivity and success in academic settings. Universities supported staff by providing resources and training to improve time and effort management skills. Kelley et al. (2021) supported this result, showing that manageable workloads positively influenced job satisfaction and reduced strain, which emphasized that work demands were aligned with time and resources, enhancing both organizational performance and psychological health.

On the other hand, indicator 5, “The purchasing department regularly reviews my purchasing schedule to stay on track” (M = 4.27, SD = 0.57), obtained the lowest mean score among the indicators above. The responses of employees were clustered around the mean,



indicating that most employees perceived schedule review practices as present and beneficial, but not as strongly as other time management components. Since this score was the lowest among the indicators, it may imply a minor performance gap in terms of routine monitoring and review of schedules. This could signal that, while scheduling existed, its regular review might not have been as frequent, systematized, or proactive as needed, possibly leading to inefficiencies, overlooked deadlines, or reactive task adjustments. According to Eon and Aguinis (2017), frequent schedule reviews enhance goal alignment and time use accuracy, especially in high-responsibility roles like procurement. Without regular check-ins, people are more prone to time drift and task misalignment. Zheng et al. (2015) argued that reviewing task progress consistently increases perceived control over time and improves task execution outcomes. Irregular review cycles may lead to time pressure and last-minute adjustments.

The overall mean score of efficiency of employees in terms of time management is (M= 4.32, SD=0.56), where responses of employees are clustered around the mean, categorized as agree and interpreted as High. This indicated a strong culture of time efficiency within the purchasing department. Employees appear confident in managing deadlines, multitasking, and leveraging available resources to maintain productivity. This strong overall result provides a benchmark for other departments in the university. The administration can replicate successful practices in time management training and resource allocation across other units to ensure institutional effectiveness. According to Islam et al. (2021), task prioritization, the consistent use of schedules, and the application of time management tools were significantly linked to improved job performance among employees. These practices enhance focus, reduce time wastage, and improve goal alignment, thereby contributing to greater work efficiency and effectiveness.

Table 2. *The efficiency of employees in terms of communication*

Statements	Mean	SD	Description	Interpretation
Their Information is communicated clearly and promptly	4.35	0.57	Agree	High
2. I receive updates regarding their service in a timely manner.	4.29	0.57	Agree	High
3. The purchasing department staff are easily accessible when needed.	4.43	0.52	Agree	High
4. They use Communication channels (email, phone, chat) work effectively to attend the employees needs.	4.42	0.55	Agree	High
5. Feedback is solicited and acted upon	4.30	0.55	Agree	High
6. Information provided by the purchasing department is easy to comprehend.	4.30	0.56	Agree	High
7. I understand the procedures for making purchases through the department	4.32	0.54	Agree	High
8. The purchasing department provides adequate resources for understanding procurement policies.	4.38	0.56	Agree	High
9. Staff members in the purchasing department communicate professionally.	4.43	0.61	Agree	High
10. The purchasing department offers support when I have questions about purchases.	4.43	0.56	Agree	High
Overall Mean	4.36	0.55	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 2 presents the responses of employees regarding the efficiency of the purchasing department’s communication practices. Based on the table above, indicator 3 “The purchasing department staff are easily accessible when needed” (M=4.43, SD= 0.52), indicator 9 “Staff members in the purchasing department communicate professionally” (M=4.43, SD= 0.61), and indicator 10 “The purchasing department offers support when I have questions about purchases” (M= 4.43, SD= 0.56). Employee responses for these indicators were clustered around the mean. These results suggested a strong level of responsiveness, professionalism, and supportiveness among the purchasing personnel. It reflected that the department had cultivated a positive communication culture, one that valued both interpersonal clarity and technical responsiveness. Purchasing processes and supplier responsiveness in organizational performance and sustainability. Wereda and Wereda (2023) found that effective purchasing cultures valued flexibility, stakeholder needs, and new norms in response to challenges like the COVID-19 pandemic. Hassan and Barasa (2021) added that institutional factors such as staff professionalism, organizational culture, institutional framework, and top management support positively influenced public procurement performance.

On the other hand, purchasing employees obtained the lowest score on indicator 2, “I receive updates regarding their service in a timely manner” (M= 4.29, SD= 0.57), where employees' responses are clustered around the mean. This may imply a minor area for improvement in proactive service updates. While still positively received and interpreted as High, the result suggests there may be occasional lapses in timeliness or consistency of updates provided by the department. According to Delana et al. (2020) Proactive service can reduce consumer waiting times and tolerate occasional errors, especially in high-utilization systems. Proactive purchasing service approaches can significantly improve service experiences and operational efficiency. Proactive interactions to prevent service failures are generally preferred by consumers over reactive responses.

The overall mean score of efficiency of employees in terms of communication is (M= 4.36, SD= 0.55), where the responses are clustered around the mean, categorized as agree and interpreted as high. The data reveal that the purchasing department demonstrates high efficiency in communication, which is crucial for operational transparency, employee satisfaction, and procurement process effectiveness. According to Yogyakarta and Yogyakarta (2018) Effective communication within purchasing departments is crucial for operational efficiency in higher education institutions. This highlights the importance of clear communication between receiving and purchasing departments to minimize errors and maintain quality standards during goods reception. This implied that clear communication and timely feedback significantly influence employee satisfaction and task efficiency, particularly in support service



functions.

Table 3. *The efficiency of employees in terms of workload*

Statements	Mean	SD	Description	Interpretation
1. They can manage multiple procurement projects without feeling overwhelmed.	4.31	0.54	Agree	High
2. They have the necessary resources (tools, software, support) to manage their workload effectively.	4.35	0.49	Agree	High
3. They know how to delegate tasks within the purchasing team when necessary	4.31	0.49	Agree	High
4. They frequently meet deadlines for purchase orders and supplier communications.	4.28	0.55	Agree	High
5. The volume of work they handle is manageable.	4.30	0.51	Agree	High
6. They feel overwhelmed by the number of tasks assigned to them	4.17	0.64	Agree	High
7. There are sufficient staff members in the purchasing department to manage their workload.	4.23	0.58	Agree	High
8. Their contributions are recognized and valued by management.	4.28	0.57	Agree	High
9. There is a clear prioritization of tasks within the purchasing department that helps manage workload effectively.	4.33	0.56	Agree	High
10. Feedback from administration regarding purchased items is taken into account when making future procurement decisions within the department or unit (e.g., academic departments, administrative offices)	4.27	0.54	Agree	High
<b>Overall Mean</b>	<b>4.28</b>	<b>0.55</b>	<b>Agree</b>	<b>High</b>

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 3 presents the efficiency of employees in terms of workload. As shown in the table above, the indicator 2 “They have the necessary resources (tools, software, support) to manage their workload effectively” holds the highest score of (M= 4.35, SD= 0.49), where the employee responses are clustered around the mean. This indicates that employees have the necessary tools, software, and support, indicating strong resource availability, which links high resources with greater performance and lower strain. According to Demerouti et al. (2017) Job resources help employees manage job demands, buffer strain, and enhance motivation, engagement, and performance. When employees have access to adequate resources—such as training, supportive supervision, clear communication, and appropriate equipment—they are better equipped to perform their duties efficiently and effectively. Ultimately, the presence of sufficient job resources contributes not only to improved individual performance but also to higher organizational productivity and a healthier workplace environment.

On the other hand, employees obtained the lowest mean (M= 4.17, SD= 0.64) on indicator 6, “They feel overwhelmed by the number of tasks assigned to them.” The responses of employees are clustered around the mean. where it indicated that, despite high resource levels, some staff occasionally experience overload. Implementing improved task delegation, workload review processes, and stress-management strategies would help close this gap. Workload overload without effective delegation or prioritization significantly contributes to burnout, particularly in administrative and procurement roles, according to Riisgaard et al (2016). Task delegation can positively impact job satisfaction and workload management. Staff generally view task delegation favorably, as it increases work autonomy and contributes to job satisfaction. Recognition for increased responsibilities is important when delegating tasks to staff.

The overall mean for efficiency of employees in terms of workload scored at (M= 4.28, SD= 0.55), where responses of the employees are clustered around the mean, which is categorized as agree and interpreted as High. The result reaffirms that the department generally balances workload, resources, and organizational support effectively. Sharing best practices across the institution could support similar success in other units. The result is in accordance with the study of Naidoo-Chetty and Du Plessis (2021), where academic units with balanced job demands and robust resource support tend to be more effective. Their findings imply that sharing best practices from such units can elevate performance across departments. Broetje et al. (2020) also agree that supervision, feedback, and autonomy boost work engagement and performance. This supports the idea that combining workload balance, resources, and support leads to sustained departmental success.

Table 4. *Summary of Mean Scores for the level of efficiency among employees*

Sub-variables	Mean	SD	Description	Interpretation
Time Management	4.32	0.56	Agree	High
Communication	4.36	0.55	Agree	High
Workload	4.28	0.55	Agree	High
<b>Overall Mean</b>	<b>4.32</b>	<b>0.55</b>	<b>Agree</b>	<b>High</b>

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 4 presents a summary of mean scores for the level of efficiency among employees. As shown in the table, purchasing employees obtained the highest mean score of (M = 4.36, SD = 0.55) for communication. This reflected the purchasing department’s strength in maintaining clear, professional, and responsive interactions through various channels. Effective communication has been linked to improved coordination, trust, and performance in service-based and administrative environments. According to Hartiana et al. (2021), effective communication played a crucial role in higher education institutions (HEIs), particularly in purchasing departments. Communication audits measured the effectiveness of internal communication among employees, revealing areas of ineffectiveness



such as information needs and openness. Murti et al. (2022) agreed with this result, stating that in procurement processes, effective communication was essential for preventing fraud and ensuring smooth operations.

Furthermore, time management obtained a score of (M = 4.32, SD = 0.56), where the responses were clustered around the mean, categorized as agree, and interpreted as high. This result demonstrated that employees were able to prioritize tasks, meet deadlines, and use their working hours efficiently, practices associated with higher job satisfaction and reduced stress. According to Aminoff et al. (2025), employees in procurement and particularly in purchasing departments tended to exhibit strong time management skills, reflected in their capacity to prioritize tasks, respond swiftly, and manage multiple responsibilities without delay. Although specific organizational studies on procurement time management were relatively scant, the significance of speed in procurement was noted, emphasizing that in rapidly changing business environments, swift decision-making and efficient task execution were pivotal for enhancing procurement performance and generating strategic value.

Moreover, workload holds the lowest mean obtained (M= 4.28, SD= 0.55). The responses of employees are clustered around the mean, which is also categorized as agree and interpreted as high. This indicates that while employees generally manage their workload effectively, there may be instances where task distribution or staffing could be further optimized. The result is similar to the study of Nuruzzaman et al. (2022), purchasing staff generally manage their workload effectively, yet there may be instances where task distribution or staffing could be further optimized reflects an important efficiency nuance well-managed overall, but with room for improvement. It was found that staff reallocation between departments with variable workload significantly improved workload balance and efficiency, suggesting that systematic staffing adjustments can close performance gaps.

The overall mean of the summary of mean scores for the level of efficiency among employees was (M = 4.32, SD = 0.55), which was categorized as "agree" and interpreted as high. Responses for this were clustered around the mean. The result suggested that the department performed well across all examined dimensions. Purchasing employees were equipped with the necessary skills, resources, and organizational support to carry out their roles effectively and collaboratively. According to Gualandris et al. (2018), procurement units with strong internal communication and clear procedural workflows scored significantly higher in operational efficiency assessments compared to units lacking such coordination. Pereira et al. (2020) also supported this, stating that a balanced workload and adequate staffing in procurement teams led to enhanced performance metrics and fewer processing delays, demonstrating the impact of efficient resource alignment.

**What is the level of collaboration in terms of feedback and solution?**

Table 5. Collaboration of employees in terms of feedback

Statements	Mean	SD	Description	Interpretation
1. The purchasing department effectively meets the needs of our organization.	4.32	0.54	Agree	High
2. Communication from the purchasing department is clear and timely.	4.19	0.58	Agree	High
3. The purchasing team is responsive to requests and inquiries.	4.25	0.56	Agree	High
4. I feel that the purchasing department understands the priorities of the organization	4.29	0.54	Agree	High
5. The processes and procedures in the purchasing department are efficient.	4.29	0.58	Agree	High
6. I receive adequate updates on the status of my purchasing requests.	4.22	0.57	Agree	High
7. The purchasing department maintains good relationships with their suppliers.	4.31	0.53	Agree	High
8. I am satisfied with the quality of products and services procured by the department.	4.30	0.52	Agree	High
9. Training and resources provided by the purchasing department are sufficient for my needs	4.26	0.53	Agree	High
10. Overall, I believe the purchasing department adds significant value to our organization.	4.37	0.53	Agree	High
Overall Mean	4.28	0.54	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 5 presents the collaboration of employees in terms of feedback. As shown in the table, the highest obtained is from indicator 10: “Overall, I believe the purchasing department adds significant value to our organization” (M= 4.37, SD= 0.53), where employees' responses are clustered around the mean. The result indicated that suggests that the purchasing department is not merely functioning in an administrative capacity but is seen as a strategic contributor to institutional goals. This implies that employees perceive procurement as driving cost savings, operational support, supplier performance, and even innovation. Vanichchinchai (2023) found that breakdowns in communication within supply chains, including procurement, result in duplicated work, coordination issues, and missed deadlines. This evidence supports the need for procurement teams to implement fast, structured communication channels such as regular status updates, shared dashboards, and prioritized messaging to maintain trust and operational efficiency across departments.

On the other hand, purchasing employees obtained the lowest mean (M= 4.19, SD= 0.58) for indicator 2 “Communication from the purchasing department is clear and timely”; responses for this indicator are clustered around the mean. This result indicated that there were minor inconsistencies or delays in communication. Effective information sharing is crucial in procurement, as breakdowns can erode trust and efficiency. While some communications meet expectations, others fall short. According to Kaufmann and Yancey (2020), even minor communication lapses within procurement processes, such as delayed status updates or unclear messaging, can create bottlenecks, duplicated efforts, and complications in interdepartmental collaboration, underscoring the need for more consistent and timely information flow.

The overall mean for the collaboration of employees in terms of feedback is (M= 4.28, SD= 0.54), categorized as agree and interpreted



as high, where employee responses are clustered around the mean. The data suggested that the purchasing employees have strong relational and procedural strength in procurement processes. High collaboration and feedback efficiency reflect integrated processes and strong internal-external linkages, aligning with best practices in performance-driven procurement. These qualities align with best practices in performance-driven procurement, where integrated internal–external collaboration is crucial. According to Ganeshan et al. (2018), supply chain units exhibiting strong internal communication, shared goals, and joint activities achieve higher operational performance and collaboration advantages mirroring your department’s strengths in procedural clarity and feedback efficiency.

Table 6. Collaboration of employees in terms of the solution

Statements	Mean	SD	Description	Interpretation
1. Implementing a centralized system would improve the purchasing efficiency.	4.34	0.55	Agree	High
2. Regular feedback sessions between the purchasing team and other departments would lead to better collaboration.	4.33	0.55	Agree	High
3. Utilizing data analytics to track purchasing trends would enhance decision-making.	4.35	0.53	Agree	High
4. Establishing clearer guidelines for supplier selection would improve the procurement outcomes.	4.37	0.54	Agree	High
5. Creating a shared knowledge base for purchasing procedures would streamline processes.	4.37	0.53	Agree	High
6. More frequent updates on the status of procurement requests would enhance communication.	4.38	0.52	Agree	High
7. The purchasing department provides sufficient support during the procurement process	4.34	0.57	Agree	High
8. The resources provided by the purchasing department are helpful.	4.35	0.52	Agree	High
9. The purchasing department effectively manages budgets for departmental purchases.	4.29	0.52	Agree	High
10. There is an effective mechanism for providing feedback on purchases made through the department	4.29	0.52	Agree	High
Overall Mean	4.34	0.53	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 6 presents the collaboration of employees in terms of the solution. As shown in the table above, the highest obtained belongs to indicator 6, “More frequent updates on the status of procurement requests would enhance communication.” (M= 4.38, SD= 0.54), where employee responses are clustered around the mean. The data suggested that the employee demand for timely and consistent communication is a foundational component of effective procurement collaboration. It underscores the need for systems that provide real-time updates. According to Kosmol et al. (2019), improved communication systems, such as procurement tracking platforms and automated alerts, significantly enhance transparency and interdepartmental collaboration, reducing response time and increasing satisfaction.

On the other hand, the lowest obtained belongs to indicator 9, “The purchasing department effectively manages budgets for departmental purchases.” (M= 4.29, SD= 0.52) Moreover, indicator 10 “There is an effective mechanism for providing feedback on purchases made through the department” (M= 4.29, SD= 0.52). This result may reflect a need for greater budget transparency and the development of structured feedback mechanisms within the procurement process. In particular, effective budget tracking is essential to ensure that purchasing activities are aligned with financial limits, priorities, and compliance requirements. When budget data is not communicated clearly or consistently, departments may be unaware of real-time spending capacity, which can result in overspending, delayed acquisitions, or inefficient allocation of funds. Similarly, feedback, especially from end-users and stakeholders, is critical for continuous improvement in procurement. Without formal channels to collect, review, and act on feedback, the purchasing department may miss opportunities to enhance supplier selection, order accuracy, and service quality. According to Jing et al. (2021) Both budget transparency and feedback integration are recognized in procurement literature as pillars of accountability, risk reduction, and strategic alignment. Even in a highly rated procurement environment, the absence of robust mechanisms in these areas could impair agile decision-making and long-term performance optimization. Tassabehji and Moorhouse (2022) emphasized that feedback loops and financial controls must be embedded in procurement workflows to improve accountability, foster learning, and ensure strategic alignment.

The overall mean for the collaboration of employees in terms of solution is M= 4.34 (SD= 0.53), which is categorized as agree and interpreted as high. The employee responses for this are clustered around the mean. This consistent level of agreement suggests that employees perceive the purchasing department not only as responsive and supportive but also as open to innovation and continuous improvement.

Notably, the data indicate a shared recognition of the importance of digital tools, structured communication, feedback systems, and standardized guidelines in optimizing procurement outcomes. reflect a mature and forward-thinking procurement function, where collaboration is not only operationally embedded but also proactively enhanced through technology, training, and structured problem-solving. These practices are consistent with global trends in procurement modernization and position the department as a strategic enabler within the institution. According to Sudusinghe and Seuring (2021), collaborative supply chain practices, including integrated processes and frequent communication, directly improve coordination and operational performance, mirroring how your department operates on a high level. Iyer et al. (2019) added that inter-functional coordination and learning-oriented collaboration significantly drive performance outcomes, underscoring the value of structured internal cooperation.



Table 7. Summary of Mean Scores for the level of collaboration among employees

Sub-variables	Mean	SD	Description	Interpretation
Feedback	4.28	0.54	Agree	High
Solution	4.34	0.53	Agree	High
Overall Mean	4.31	0.53	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 7 presents the summary of mean scores for the level of collaboration among employees. As shown in the table, purchasing employees obtained the highest mean score for solution (M = 4.34, SD = 0.53), where the responses were clustered around the mean. This indicated that employees highly valued collaborative efforts directed at finding practical and strategic solutions in procurement. The data suggested that there was confidence in centralized systems, structured guidelines, and knowledge sharing as tools to improve procurement efficiency and interdepartmental collaboration. Muhwezi et al. (2023) highlighted that integrated electronic linkages and standardized procedures across internal and external supply chains, such as centralized systems and shared procurement workflows, significantly enhanced procurement performance through improved coordination and data consistency.

Furthermore, collaboration in terms of feedback obtained the lowest score (M = 4.28, SD = 0.54), which was categorized as agree and interpreted as high, with employee responses clustered around the mean. The result suggested that there was room for improvement in structured feedback systems. Employees may have felt that, while collaboration existed, feedback loops (e.g., updates on request status, post-procurement reviews, or suggestion mechanisms) were less consistent or actionable. Tassabehji and Moorhouse (2022) emphasized that feedback and two-way communication were essential for continuous improvement in procurement performance and strategic alignment. Weaknesses in this area could have led to missed learning opportunities and reduced employee engagement.

The overall mean for the summary of mean scores for the level of collaboration among employees was (M = 4.31, SD = 0.53), which was categorized as agree and interpreted as high, with employees’ responses clustered around the mean. The result signified a high and consistent level of collaboration among purchasing employees, indicating that both strategic (solution-oriented) and relational (feedback-related) aspects of collaboration were well practiced. It suggested that the department functioned with a shared vision, operational clarity, and a commitment to stakeholder engagement. The result was in consonance with the study of Turkulainen et al. (2017), which found that departments with a shared strategic vision and well-integrated processes, including coordinated knowledge exchange, achieved higher procurement efficiency and partner engagement.

**What is the level of process in terms of procedures, protocols, and orientation?**

Table 8. Process of purchasing employees in terms of procedure

Statements	Mean	SD	Description	Interpretation
1. The purchasing procedures are clearly documented and easily accessible.	4.32	0.59	Agree	High
2. The purchasing procedures are effective in guiding their decision-making.	4.32	0.52	Agree	High
3. The purchasing procedures are regularly reviewed and updated as needed.	4.28	0.52	Agree	High
4. The procedures allow for flexibility in handling unique purchasing situations.	4.30	0.51	Agree	High
5. I receive timely feedback regarding my adherence to purchasing procedures.	4.23	0.55	Agree	High
6. The purchasing procedures facilitate effective communication with suppliers.	4.33	0.49	Agree	High
7. I understand the steps involved in the purchasing process.	4.32	0.57	Agree	High
8. I believe that our current procurement methods minimize delays.	4.26	0.59	Agree	High
9. They have received adequate training regarding purchasing procedures.	4.29	0.57	Agree	High
10. The purchasing process is efficient and timely.	4.30	0.58	Agree	High
Overall Mean	4.29	0.54	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 8 shows the process of purchasing employees in terms of procedure. As presented in the table above, purchasing employees obtained the highest mean of (M= 4.33, SD=0.49) for indicator 6, “The purchasing procedures facilitate effective communication with suppliers.” This result highlights the department’s strength in supplier communication, a critical aspect of efficient procurement. Well-designed procedures that streamline supplier interactions are essential for accuracy, transparency, and timely procurement outcomes. According to Sagi et al. (2015), procurement procedures that include well-defined communication frameworks with suppliers lead to improved relational performance and reduced transactional friction. On the other hand, the lowest score obtained belongs to indicator 5, “I receive timely feedback regarding my adherence to purchasing procedures” (M= 4.23, SD= 0.55). The data suggests a minor gap in monitoring or communication related to procedural compliance. Employees may not consistently receive actionable feedback on how well they follow procedures, which can limit accountability and continuous improvement. Awaysheh and Klassen (2015) argue that monitoring mechanisms such as internal verification or performance audits enhance compliance and workplace accountability, helping organizations maintain consistent quality and reduce inefficiencies. Their cross-industry analysis underscores that gaps in feedback systems are linked to transactional risks and missed improvement opportunities.

The overall mean for the process of purchasing employees in terms of procedure is (M= 4.29, SD= 0.54), which is categorized as agree and interpreted as high, with employee responses clustered around the mean. The result indicates a high level of employee agreement



that purchasing procedures are clear, useful, and functionally effective. The data suggests that processes are documented, flexible, regularly reviewed, and integrated into daily operations. The results reflect a procedurally mature procurement function, where operational clarity supports efficient purchasing and strong supplier engagement. According to De Araújo et al. (2017), purchasing management found that organizations with well-documented, standardized, and regularly reviewed procurement procedures tend to showcase higher supplier performance, minimize delays, and improve stakeholder satisfaction, signaling a mature procurement function with operational clarity and integration.

Table 9. *Process of purchasing employees in terms of protocol*

Statements	Mean	SD	Description	Interpretation
1. The purchasing department consistently follows established protocols for supplier selection.	4.29	0.51	Agree	High
2. There is clear communication regarding purchasing procedures within the department	4.35	0.52	Agree	High
3. The purchasing policies are regularly reviewed and updated to reflect current market conditions.	4.27	0.56	Agree	High
4. The department effectively manages supplier relationships to ensure quality and reliability.	4.30	0.50	Agree	High
5. Staff members are adequately trained on the purchasing protocols and best practices..	4.30	0.57	Agree	High
6. The purchasing department prioritizes cost- effectiveness in all procurement decisions.	4.31	0.52	Agree	High
7. The purchasing department effectively collaborates with other departments to understand their needs.	4.32	0.53	Agree	High
8. Feedback from department is actively sought and considered in the purchasing process.	4.31	0.52	Agree	High
9. I feel that my needs as an employee are prioritized by the purchasing department	4.32	0.55	Agree	High
10. I believe there is accountability within the purchasing process	4.31	0.50	Agree	High
Overall Mean	4.30	0.52	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 9 presents the process of purchasing employees in terms of protocol. As shown in the table, the highest mean obtained belongs to indicator 2, “There is clear communication regarding purchasing procedures within the department” (M= 4.35, SD= 0.52). This indicates that employees perceive the department’s internal communication as consistent and effective. Transparency in protocols likely contributes to efficiency and builds confidence among employees involved in procurement. According to Silva, R. and Matos, F. (2021), effective internal communication of procurement procedures contributes significantly to organizational agility and staff empowerment in purchasing decisions. Clear communication and consistent practices are strengths of the purchasing department. On the other hand, the lowest mean obtained belongs to indicator 3, “The purchasing policies are regularly reviewed and updated to reflect current market conditions.” (M= 4.27, SD= 0.56). This suggests a minor lag in policy revision relative to dynamics. The score could indicate that employees occasionally encounter outdated or rigid policies, which may limit flexibility or responsiveness. Valk and Wynstra (2015) emphasized the importance of continuously adapting procurement policies to match market volatility, which enhances value creation and minimizes procurement risks. Slight improvement may be needed in how frequently protocols are reviewed to stay aligned with fast-changing market conditions.

The overall mean for the purchasing employees’ process in terms of protocol was M = 4.30 (SD = 0.52), categorized as agree and interpreted as high, with employee responses clustered around the mean. The result reflected a high level of adherence to purchasing protocols. Employees agreed that the department maintained well-established, transparent processes and fostered strong interdepartmental collaboration. The emphasis on cost-effectiveness, accountability, and responsiveness to feedback suggested a well-rounded, strategically aligned procurement function. This result was similar to the findings of Gadde and Wynstra (2018), who explained that procedural maturity in procurement marked by protocol adherence, internal collaboration, and strategic responsiveness is a key enabler of cost control, compliance, and supplier performance.

Table 10. *Process of purchasing employees in terms of orientation*

Statements	Mean	SD	Description	Interpretation
1. The purchasing department clearly communicates its mission and goals to all employees.	4.31	0.53	Agree	High
2. There is a strong alignment between the purchasing department's objectives and the overall organizational strategy.	4.35	0.50	Agree	High
3. Employees in the purchasing department understand their roles and responsibilities within the team.	4.36	0.52	Agree	High
4. The purchasing department effectively integrates sustainability and ethical considerations into its operations.	4.33	0.51	Agree	High
5. There is a strong emphasis on teamwork and collaboration within the purchasing department.	4.33	0.52	Agree	High
6. The department actively seeks input from stakeholders to improve its orientation and processes.	4.33	0.50	Agree	High
7. Employees feel supported by management in their efforts to achieve departmental goals.	4.34	0.51	Agree	High
8. The purchasing department regularly assesses its performance against established benchmarks and objectives	4.33	0.50	Agree	High
9. I believe that they provide good value for money in their procurement activities.	4.33	0.57	Agree	High
10. There is a strong sense of camaraderie among purchasing staff.	4.36	0.54	Agree	High
Overall mean	4.33	0.52	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.



Table 10 presents the process of purchasing employees in terms of orientation. As shown in the table, the highest mean obtained belongs to indicator 3 “Employees in the purchasing department understand their roles and responsibilities within the team.” (M= 4.36, SD= 0.52) and indicator 10 “There is a strong sense of camaraderie among purchasing staff.” (M= 4.36, SD= 0.54). These results indicate a high level of internal orientation within the purchasing team, reflecting a well-structured and supportive work environment where employees clearly understand their individual roles and responsibilities. This clarity reduces confusion, enhances accountability, and promotes consistent performance across procurement activities. Additionally, the strong sense of camaraderie among employees suggests a culture of mutual respect and collaboration, which boosts morale and encourages open communication. Such an environment not only facilitates smoother operations but also strengthens team cohesion, ultimately contributing to increased efficiency, reduced errors, and improved overall departmental outcomes. When employees feel connected and aligned with their team and goals, they are more likely to contribute proactively and sustain high levels of engagement and productivity. According to Weimar et al. (2017) purchasing team operates within a well-structured and supportive environment, where clear role definitions and interpersonal rapport foster efficiency, accountability, and consistent performance. Employees understand their responsibilities, collaborate freely, and feel connected, factors known to boost morale and reduce confusion.

On the other hand, the lowest mean obtained belongs to indicator 1, “The purchasing department clearly communicates its mission and goals to all employees.” (M= 4.31, SD= 0.53). This indicates a need to bolster strategic communication within the purchasing department. Ensuring that all employees fully grasp the overarching mission and long-term objectives can enhance alignment, foster deeper engagement, and empower more autonomous decision-making. According to Kim et al. (2020), clear communication of strategic goals strengthens role clarity and employee engagement, ultimately improving performance outcomes. For example, a study examining employee perception in firms found that strategic alignment fosters goal clarity and engagement, which serve as critical conduits for translating organizational vision into everyday behaviors and higher operational performance.

The overall mean for the process of purchasing employees in terms of orientation is (M= 4.33, SD= 0.52), categorized as agree and interpreted as high. Employee responses were clustered around the mean. The results reflect a strong orientation process in the purchasing department, with high agreement indicating that employees are strategically aligned with organizational goals, ethically and sustainability aware, and feel supported by management. Effective collaboration further suggests a cohesive and engaged team, contributing to a well-functioning and purpose-driven procurement unit. According to Wiyono et al. (2025), when employees clearly understand their roles and receive active management support for ethical and sustainability goals, it significantly enhances both role clarity and decision alignment, leading to superior procurement outcomes.

Table 11. Summary of Mean Scores for the level of process among employees

Statements	Mean	SD	Description	Interpretation
Procedure	4.29	0.54	Agree	High
Protocol	4.30	0.52	Agree	High
Orientation	4.33	0.52	Agree	High
Overall Mean	4.31	0.53	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 11 presents the summary of mean scores for the level of process among employees. As shown in the table, purchasing employees obtained the highest mean (M= 4.33, SD= 0.52) for Orientation. This implied that employees are well-informed about their roles, aligned with organizational goals, and supported by a clear departmental direction. This suggests that the department fosters a strategic and inclusive environment where staff are purpose-driven and well-integrated. According to Smith and Thomas (2023), clear and specific communication of organizational goals and roles alongside performance metrics strongly improves employee focus, ownership, and collaborative behavior.

Furthermore, purchasing employee protocol holds the second-highest mean obtained (M= 4.30, SD= 0.52), showing that employees believe established purchasing rules and standards are consistently followed, with clear accountability and collaboration across units. This promotes efficiency, transparency, and uniformity in procurement practices. The result of this study is similar to the study of Anjum and Khan (2024). When employees affirm that established purchasing rules and standards are consistently followed, with clear accountability and cross-unit collaboration, it suggests a mature procurement function underpinned by structured governance. This promotes efficiency, transparency, and uniformity throughout processes.

Moreover, the purchasing employee procedure holds the lowest mean obtained (M= 4.29, SD= 0.54). This implies that employees finding the purchasing processes well-documented, flexible, and aligned with daily operations reflects a mature and responsive procurement system. Clear documentation ensures that staff can easily follow standardized procedures, reducing errors and enhancing consistency across tasks. According to Issah et al. (2025), units with well-documented procedures, integrated flexible workflows, and alignment with operational needs significantly improved both efficiency and supplier performance. Responsiveness to change and clarity in processes were key success factors.

The overall mean for the summary of mean scores for the level of process among employees is (M= 4.31, SD= 0.53), categorized as agree and interpreted as high, with employee responses clustered around the mean. This implied that the purchasing department maintains a well-structured, reliable process framework characterized by clarity, consistency, and strong internal coordination. The



high level of agreement across all components implies that the department’s operational processes are not only functioning effectively but are also well-understood and accepted by the personnel involved. According to Rahimi et al. (2016), standardized procurement procedures supported by integrated information systems enhance efficiency, process transparency, and interdepartmental collaboration. Standardized procedures and information integration significantly improved coordination and reduced transaction errors in procurement operations.

**What is the level of effectiveness of employees in the purchasing department?**

**Table 12. The level of effectiveness of purchasing employees**

Statements	Mean	SD	Description	Interpretation
1. The physical facilities are visually appealing.	4.33	0.53	Agree	High
2. Staff appearance is neat and professional.	4.30	0.52	Agree	High
3. The materials associated with the service (e.g., brochures, websites) are visually appealing.	4.30	0.51	Agree	High
4. The service is performed accurately and dependably.	4.35	0.53	Agree	High
5. The department provides the promised service consistently.	4.29	0.53	Agree	High
6. I can rely on the purchasing department to handle my needs.	4.31	0.57	Agree	High
7. The service is performed right the first time.	4.33	0.56	Agree	High
8. The purchasing department staff is willing to help other employees	4.39	0.55	Agree	High
9. The purchasing department staff provides prompt service.	4.36	0.54	Agree	High
10. The purchasing department responds quickly to employee inquiries.	4.29	0.53	Agree	High
11. The purchasing department staff are proactive in addressing customer needs	4.28	0.54	Agree	High
12. The purchasing department staff is knowledgeable about the services needed by the employee.	4.30	0.55	Agree	High
13. I feel safe in my transactions with the purchasing department.	4.31	0.55	Agree	High
14. Purchasing department employees are courteous and respectful.	4.33	0.56	Agree	High
15. The department instills confidence in other employees.	4.31	0.55	Agree	High
Overall	4.32	0.54	Agree	High

Legend: Scale 5 (4.51–5.00)—Strongly Agree, Very High; 4 (3.51–4.50)—Agree, High; 3 (2.51–3.50)—Neutral, Moderate; 2 (1.51–2.50)—Disagree, Low; 1 (1.00–1.50)—Strongly Disagree, Very Low.

Table 12 presents the level of effectiveness of purchasing employees. As shown in the table, the highest obtained mean belongs to indicator 8, “The purchasing department staff is willing to help other employees” (M= 4.39, SD= 0.55). The result suggests that employees perceive the purchasing department staff as approachable, responsive, and eager to support others beyond their direct responsibilities. This willingness to assist indicates strong interpersonal relationships within the workplace and can foster a cooperative atmosphere that enhances both internal service delivery and overall productivity. Such behaviors contribute to building trust and a supportive work environment, which are essential for achieving cross-departmental goals. According to Balinado et al. (2021) High service effectiveness is closely tied to staff responsiveness and willingness to assist, which researchers identify as key drivers of internal satisfaction and quality perceptions.

Followed by indicator 9 “The purchasing department staff provides prompt service” (M= 4.36, SD= 0.54), the data suggests that employees perceive the purchasing department staff as timely and efficient in delivering services. Prompt service is a critical component of internal service quality, as it reduces delays, supports department workflows, and ensures that procurement tasks are completed within expected timeframes. This reflects that the department has likely established clear service timelines, streamlined request processing, and responsive communication channels. According to Bouslah et al. (2017) High service effectiveness is closely linked to staff responsiveness and willingness to help, qualities that are often reflected in timely delivery, which in turn signals competence and dependability. This timely performance strengthens trust between support units and end-users, reinforcing the notion that a proactive purchasing team can maintain smooth workflow continuity.

On the other hand, the lowest mean obtained belongs to indicator 11, “The purchasing department staff are proactive in addressing customer needs” (M= 4.28, SD= 0.54). This indicates that proactivity in the purchasing department involves anticipating the needs of other departments, suggesting solutions before issues arise, and continuously improving service delivery. Results implied that while the employees are reactive and dependable when approached, they might not consistently take the initiative to foresee needs or innovate processes unless prompted. Strengthening proactive behaviors could increase efficiency, reduce delays, and enhance overall user satisfaction. This finding is supported by the study of Vlahakis et al. (2019) proactive procurement frameworks, such as those involving forecasting and early event detection, significantly improve order efficiency, agility, and cost management, underscoring the value of forward-looking procurement behavior.

The overall mean for the level of effectiveness of purchasing employees is (M= 4.32, SD= 0.54), categorized as agree and interpreted as high, with employee responses clustered around the mean. This reflects a generally high level of satisfaction with the purchasing department’s effectiveness across all service dimensions. The results in areas like service accuracy, promptness, dependability, and professionalism demonstrate that the department is functioning reliably and is viewed positively. This suggests that both the tangible (e.g., materials and facilities) and intangible (e.g., employee behavior, responsiveness) aspects of service are well managed. Employees feel respected, secure, and confident in their interactions with the purchasing staff, which reinforces organizational efficiency and



employee morale. This level of performance indicates a mature service unit with well-defined standards and consistent delivery. According to Jatmika and Abdurrahman (2023) High service effectiveness within the purchasing department—evidenced by high ratings across tangibles, reliability, responsiveness, assurance, and empathy—strongly aligns with core dimensions of the well-established SERVQUAL framework. Among these, reliability is widely recognized as the most critical factor affecting service quality and stakeholder satisfaction. This underscores that when a department consistently delivers accurate, dependable, and professional services backed by timely responsiveness and courteous behavior, it fosters internal trust, supports operational efficiency, and elevates staff confidence.

**Is there a significant relationship between effectiveness and efficiency, collaboration, and the process of employees in the purchasing department?**

H01: There is no significant relationship between effectiveness and efficiency, collaboration, and the process of employees in the purchasing department

Table 13. Results of Pearson R Correlation Analysis for the significant relationship between Efficiency, Collaboration, Process, and Effectiveness

Variables	R	P-value	Interpretation
Effectiveness of employees			
Time Management	0.668***	.000	Significant
Communication	0.633***	.000	Significant
Workload	0.615***	.000	Significant
Efficiency	0.718***	.000	Significant
Feedback	0.695***	.000	Significant
Solution	0.684***	.000	Significant
Collaboration	0.772***	.000	Significant
Procedure	0.641***	.000	Significant
Protocol	0.711***	.000	Significant
Orientation	0.812***	.000	Significant
Process	0.807***	.000	Significant

\*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).  
 \*\*\*. Correlation is significant at the 0.001 level (2-tailed)

Table 13. presented the results of pearson r correlation analysis for the significant relationship between efficiency, collaboration, process, and effectiveness. As shown in the table, purchasing employees' time management ( $r = 0.668, p < .000$ ) showed a strong positive correlation towards their effectiveness in Liceo de Cagayan University. This indicates that purchasing employees have better time management practices, such as prioritizing tasks, setting clear schedules, and meeting deadlines, which enhance employee effectiveness. When staff manage their time wisely, they become more productive, dependable, and less prone to delays. This result is similar to the findings of Dunmade et al. (2020), who found a significant relationship between time management practice and employees' effectiveness, indicating that effective time management enhances employee performance.

Moreover, communication ( $r = 0.633, p < .000$ ) also showed a strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This means that communication is strongly linked to purchasing employee effectiveness. This includes their timely updates, clear procedures, and responsive interactions between the purchasing department and stakeholders. Clear communication reduces errors, aligns expectations, and improves service satisfaction. It also boosts team cohesion and operational transparency. According to Raina (2016), higher levels of downward, upward, and horizontal communication were associated with increased organizational effectiveness, as it demonstrates a positive correlation between effective communication and organizational or team effectiveness.

Furthermore, workload ( $r = 0.615, p < .000$ ) also showed a strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This showed that purchasing employees are more effective when their workload is manageable. Overburdened staff may experience burnout, mistakes, and reduced motivation, while balanced task distribution leads to better focus and output. According to Nuwaha et al. (2023) There is a significant positive correlation between workload and their effectiveness. A balanced workload prevents burnout and maintains service quality in procurement roles.

In addition, efficiency ( $r = 0.718, p < .000$ ) showed a very strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. The data suggests that when purchasing, employees work efficiently with minimal delays and streamlined processes, their overall effectiveness improves significantly. The result is in consonance with the study of Choi and Jung (2017), who found a strong correlation between efficiency and effectiveness among university staff, with variations based on education level, with demonstrated a robust connection between the two variables.

Further, feedback ( $r = 0.695, p < .000$ ) showed a strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This indicates that when purchasing employees receive and act on feedback, they refine their services, correct inefficiencies, and better meet expectations. Regular feedback also motivates performance improvement and keeps employees aligned with evolving standards. These findings are similar to the study of Schneider and Ledford (2020), where Research consistently shows

that a favorable feedback environment correlates positively with employee performance and effectiveness. A supportive feedback culture enhances communication, boosts morale, and fosters a sense of psychological safety, allowing employees to engage in continuous learning and self-improvement. Moreover, when feedback is timely, constructive, and aligned with organizational goals, it not only improves individual performance but also contributes to greater team collaboration and organizational efficiency.

In contrast, solution ( $r = 0.684$ ,  $p < .000$ ) also showed a strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This variable reflects proactive problem-solving. When a purchasing staff is empowered to propose improvements or resolve issues early, their effectiveness increases. This finding promotes the culture of innovation and ownership within purchasing roles. According to Nusraningrum et al. (2024) solution-focused culture characterized by empowerment, task significance, social support, and transformational leadership was a key driver of enhanced job performance among industrial workers, where it was associated with their effectiveness.

Likewise, collaboration ( $r = 0.772$ ,  $p < .000$ ) showed a very strong positive correlation towards purchasing employees' effectiveness in Liceo de Cagayan University. This implies that when employees work together, share information, and support each other, they achieve common goals more effectively. Team-based efforts reduce silos and enable cross-functional alignment, which is crucial in procurement where multiple departments interact. These findings are similar to the study of Ali et al. (2024), where the positive impact of collaboration on employee effectiveness and related outcomes in employee setting the collaboration correlate with improved team effectiveness and work readiness.

Consequently, procedure ( $r = 0.647$ ,  $p < .000$ ) showed a strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This result supports the idea that structured workflows reduce ambiguity, improve compliance, and ensure consistency in service delivery. Employees who follow established procedures tend to complete tasks more accurately and efficiently. According to Laili et al. (2023), procedures found that proper implementation positively impacts employee work effectiveness, as employee awareness and understanding of these procedures can enhance their effectiveness and trust in the grievance redressal system.

By the same token, protocol ( $r = 0.711$ ,  $p < .000$ ) showed a very strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This implied that adherence to rules, standards, and best practices enhances staff effectiveness. Purchasing departments benefit from consistency and integrity, both of which are supported when protocols are clearly communicated and regularly updated. This finding is consistent with the study of Laba et al. (2025), where Protocol enhances employee effectiveness by preparing leadership work agendas and facilitating communication between leadership and personnel, thereby improving the overall efficiency and effectiveness of government tasks in Sikka Regency.

Correspondingly, orientation ( $r = 0.812$ ,  $p < .000$ ) also showed a very strong positive correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This suggests that employees who understand their roles, departmental goals, and standards tend to be highly effective. Strategic alignment fosters accountability, engagement, and performance. A robust orientation program supports role clarity and organizational integration. According to Liv et al. (2020) Work orientation significantly influences employee effectiveness and overall organizational performance. Studies have shown that various dimensions of work orientation—such as job involvement, purpose-driven work, and intrinsic motivation positively impact employee engagement and creativity, with engagement serving as a partial mediator in this relationship.

Lastly, process ( $r = 0.807$ ,  $p < .000$ ) also showed a very strong correlation towards the effectiveness of purchasing employees in Liceo de Cagayan University. This showed that well-defined processes covering procedures, protocols, and orientation are foundational to employee success. When processes are clear, adaptable, and integrated into daily tasks, employees work with confidence and consistency, resulting in improved service delivery and stakeholder satisfaction. In the study of Fizi (2024), it was found that work processes, especially business process automation, have a positive effect on employee effectiveness at PT. Semen Gresik Packaging Industry. The results showed that for every one-unit increase in automation, work effectiveness increased by 0.246 units, assuming other factors stayed the same. Therefore, the null hypothesis stated that there is no significant relationship between effectiveness and efficiency, collaboration, and the process of employees in the purchasing department in this study is hereby rejected.

### ***Which of the variables best predicts the effectiveness of employees in the purchasing department?***

Ho2: None of the variables best predicts the effectiveness of employees in the purchasing department

Table 14 presents the Results of Multiple Regression Analysis for the variables that, singly or in combination, significantly influence the effectiveness of employees. As shown in the table, the R value is .859, indicating a very strong positive relationship between employee effectiveness and the independent variables used in the model. The  $R^2$  value of .738 suggests that the combined influence of the predictor variables can explain 73.8% of the variance in employee effectiveness. The F value of 39.357 and a p-value of .000 indicate that the overall regression model is statistically significant, confirming that the set of independent variables significantly predicts employee effectiveness.

Among the variables tested, the following were found to have a statistically significant influence on employee effectiveness: Time Management ( $\beta = 0.653$ ), Communication ( $\beta = 0.508$ ), and Solution ( $\beta = 0.138$ ). The rest of the variables, including Workload,



Efficiency, Feedback, Procedure, Protocol, Orientation, and Process, did not show statistically significant effects on employee effectiveness within the model.

Table 14. Results of Multiple Regression Analysis for the Variables that singly or in combination significantly influence the effectiveness of employees

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
(Constant)	0.045	0.232		0.193	0.848	Not Significant
Time Management	0.634	0.277	0.653	2.285	0.024	Significant
Communication	0.523	0.259	0.508	2.018	0.046	Significant
Workload	0.476	0.284	0.450	1.679	0.095	Not Significant
Efficiency	-1.546	0.789	-1.342	-1.960	0.052	Not Significant
Feedback	0.129	0.079	0.124	1.632	0.105	Not Significant
Solution	0.139	0.065	0.138	2.122	0.036	Significant
Procedure	-0.224	0.275	0.226	-0.813	0.417	Not Significant
Protocol	-0.104	0.292	-0.098	-0.358	0.721	Not Significant
Orientation	0.224	0.296	0.220	0.755	0.452	Not Significant
Process	0.737	0.824	0.647	0.894	0.373	Not Significant
R=.859 R2=.738 F=39.357 P=.000						

The results indicate that specific dimensions of workplace performance significantly influence employee effectiveness. Notably, a one-point increase in time management corresponds to a 0.634-point increase in employee effectiveness, emphasizing the strong impact of managing work schedules, prioritizing tasks, and meeting deadlines. Similarly, an improvement of one point in communication practices is associated with a 0.523-point increase in effectiveness, suggesting that clear, timely, and accessible communication substantially enhances how effectively employees perform their roles. Meanwhile, a one-point increase in the solution-oriented collaboration variable reflecting proactive behavior, feedback mechanisms, and innovative problem-solving leads to a 0.139-point increase in effectiveness, assuming other factors remain unchanged. This highlights that while solution-focused strategies contribute positively, their effect is comparatively smaller, suggesting that foundational competencies like time management and communication have a stronger influence on overall effectiveness.

Recent studies support these findings. For example, Sisay, Yazachew, and Asmamaw (2023) emphasized that solution-focused environments—particularly those with clear task structures and problem-solving autonomy—significantly enhance employee performance and engagement in public service sectors. Similarly, Nurul Asmira and Nurulain (2021) highlighted that effective communication directly influences employee experience and organizational success, particularly when clarity and responsiveness are present. Moreover, a 2025 study by Sharma demonstrated that well-managed time and transparent communication processes are essential in delivering high-quality internal services, with strong statistical evidence linking these factors to employee satisfaction and effectiveness. Therefore, the null hypothesis stated that None of the variables best predicts effectiveness of employees in the purchasing department in this study is hereby rejected.

## Conclusions

Based on the findings of the study, the following conclusions were drawn:

Employees exhibited a high level of efficiency in workload management, communication, and time management, with communication being the most positively rated aspect. While overall efficiency was strong, variations in responses suggested slight inconsistencies, particularly in time management practices such as regular schedule reviews. This indicates the need to reinforce consistent practices to enhance departmental productivity further. Employees demonstrated strong collaboration, especially in solution-oriented approaches, followed by feedback mechanisms. The solution aspect was rated most favorably, reflecting a departmental focus on structured problem-solving and system improvements. However, feedback-related components, particularly in communication consistency and channels for feedback, revealed opportunities for strengthening engagement and shared responsibility. Purchasing employees also showed a high level of adherence to established processes, including procedures, protocols, and orientation. Orientation stood out as the most well-received aspect, highlighting that employees understand their roles and align with the department’s objectives. Still, lower ratings in procedural feedback suggest that more timely and structured performance reviews may enhance process efficiency and continuous development.

Regarding effectiveness, employees reported strong performance, particularly in their willingness to assist others and deliver prompt service. These aspects reflect a supportive and responsive workplace culture. However, slightly lower ratings in proactive behavior suggest a need to foster greater initiative and forward-thinking approaches among staff. There was a significant relationship between employee effectiveness and the variables of efficiency, collaboration, and process. Higher levels of effectiveness were associated with clearer role understanding, structured workflows, and strong teamwork. These results emphasize that when employees operate within clear systems and collaborate effectively, their work outcomes are substantially improved. The study concluded that time management, communication, and solution-oriented collaboration were the strongest predictors of employee effectiveness. Among these, time management had the most influence, followed by communication and collaborative problem-solving. Together, these factors played a

critical role in shaping employee effectiveness. Strengthening these areas through targeted improvements in training, communication flow, and leadership responsiveness is recommended further to enhance the department's overall efficiency and service quality.

Based on the findings and conclusions of the study, the following recommendations are put forward:

**Higher Education Institution.** The institution may strengthen its internal systems by promoting structured and consistent procurement practices that directly address issues of efficiency, collaboration, and process. This includes implementing digital platforms for tracking requests, enforcing standardized timelines, and ensuring purchasing procedures are transparent and well-documented. Continuous improvement efforts, such as workflow automation and regular staff development, should be prioritized to resolve procedural delays. Moreover, fostering an institutional culture of solution-oriented communication and interdepartmental collaboration will ensure sustained alignment with organizational goals. **Administrators.** May enhance employee effectiveness by encouraging time management, open communication, and team-based problem-solving, which were found to be significant predictors of employee effectiveness. Leaders should ensure proper delegation of tasks, adopt responsive leadership styles, and conduct periodic performance monitoring. Administrators are also encouraged to provide structured orientation for new staff and create platforms for feedback, enabling employees to adapt to evolving procurement practices while staying aligned with institutional objectives.

**Purchasing department.** The department may refine its procedures, protocols, and feedback mechanisms to strengthen employee collaboration and process compliance. Regular review sessions, inclusion of employee input in policy adjustments, and transparent documentation of transactions will enhance credibility and accountability. Emphasizing solution-oriented collaboration and proactive service can address identified gaps, while promoting accountability ensures smoother operations and reliability in procurement services. **Employees.** May strive to improve their effectiveness by practicing time management, actively participating in collaborative planning, and remaining adaptable to process changes. They should engage in open communication, provide constructive feedback, and take initiative in understanding institutional procedures. By demonstrating proactive behavior and solution-oriented decision-making, employees can directly contribute to enhancing the purchasing department's efficiency and service quality. **Future Researchers.** May expand on this research by exploring additional organizational factors such as leadership style, resource allocation, and digital integration in relation to procurement effectiveness. Investigating how variables like feedback systems, protocol clarity, and interdepartmental communication influence employee performance across different institutions may provide comparative insights. Broader studies that include other departments or universities could also help in developing best practices for procurement management in higher education.

## References

- Abiona, B.G. (2015). Effect of Communication Pattern on Agricultural Employees' Job Performance. *Journal of extension systems*, 31. <https://www.semanticscholar.org/paper/Effect-of-Communication-Pattern-on-Agricultural-Job-Abiona/b062d6aef3fc90dff0dab169af09db840c6fd0fb>
- Adams, E., & Ama, N.O. (2024). Effect of feedback and rewards on employee performance: City of Johannesburg Municipality's case. *Africa's Public Service Delivery and Performance Review*. <https://www.semanticscholar.org/paper/Effect-of-feedback-and-rewards-on-employee-City-of-Adams-Ama/d7dcef4e395d8c1c327e03fbc824dd9e93651d18>
- Eon, B., & Aguinis, H. (2017). It's About Time: New Perspectives and Insights on Time Management. *Academy of Management Perspectives*, 31(4), 309–330. <https://doi.org/10.5465/amp.2016.0166>
- Agarwal, S., Atreja, S., & Agarwal, V. (2020). Extracting Procedural Knowledge from Technical Documents. *Arxiv*, abs/2010.10156. <https://www.semanticscholar.org/paper/Extracting-Procedural-Knowledge-from-Technical-Agarwal-Atreja/29faf6bc08e261c7763fd6f0b09ad2c414faf75c>
- Al Shakarchi, J. (2022). How to write a systematic review or meta-analysis protocol. *Journal of Surgical Protocols and Research Methodologies*. <https://www.semanticscholar.org/paper/How-to-write-a-systematic-review-or-meta-analysis-Shakarchi/9e2ac14811ea80080658b952228c99e0115a2ba2>
- Alharbi, A., Alharbi, F.H., Almadhi, K.S., Alharbi, A.N., Albader, R.I., Musallam, A.M., & Khaled, A.A. (2019). Orientation management in an organization is a tool to increase employee productivity—*Journal of Marketing and Consumer Research*.
- Ali, R. M. N., Mohammed, M. Z., & Hassan, A. A. A. (2024). The Association between Collaboration, Team - Effectiveness and Work Readiness among Nurses. *Deleted Journal*, 015(2), 72–80. <https://doi.org/10.21608/msnj.2024.296655.1124>
- Amelia, P., Wirjodirdjo, B., & Dewi, R. S. (2024). The dynamics of supply chain collaboration: intellectual and social capital perspectives with the moderating role of information sharing. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2418423>
- Aminoff, A., Lorentz, H., & Kaipia, R. (2025). Strategic value contribution through speed in procurement - A capability microfoundation perspective. *Journal of Purchasing and Supply Management*, 101053. <https://doi.org/10.1016/j.pursup.2025.101053>
- Anjum, M. N., & Khan, M. K. (2024). Impact of public procurement rules on the efficient procurement processes mediated by

technology integration, Health sector: a case of Punjab. *Research Journal for Societal Issues*, 6(2), 326–347. <https://doi.org/10.56976/rjsi.v6i2.226>

Ashnai, B., Smirnova, M., Henneberg, S.C., & Naudé, P. (2019). Dyadic Operationalization in Business Relationships: The Empirical Example of Marketing-Purchasing Collaboration. *Journal of Business-to-Business Marketing*, 26, 19 - 42.

Association of Educational Purchasers. (2023). The Impact of E-Procurement on Educational Institutions. Retrieved from [aepurchasers.org](http://aepurchasers.org).

Awaysheh, A., & Klassen, R. D. (2015). The impact of supply chain design and control on sustainable procurement compliance. *International Journal of Operations & Production Management*, 35(6), 789–808. <https://doi.org/10.1108/IJOPM-10-2014-0428>

Baker, M. (2021). *Effective Communication in Organizations: Strategies for Success*. Routledge.

Bala, H., Massey, A.P., & Montoya, M.M. (2017). The Effects of Process Orientations on Collaboration Technology Use and Outcomes in Product Development. *Journal of Management Information Systems*, 34, 520 - 559.

Balinado, J. R., Prasetyo, Y. T., Young, M. N., Persada, S. F., Miraja, B. A., & Redi, A. a. N. P. (2021). The effect of service quality on customer satisfaction in an Automotive After-Sales service. *Journal of Open Innovation Technology Market and Complexity*, 7(2), 116. <https://doi.org/10.3390/joitmc7020116>

Bendoly, E., Donohue, K., & Melnyk, S. (2018). Behavioral Operations: Understanding the Human Side of Operations Management. *Production and Operations Management*, 27(8), 1367-1371.

Bengan Laba, M. O., Mustafa, I., Sedu, V. A., & Kedoh, L. N. (2025). Peran sub bagian protokol dalam penyusunan agenda kerja pimpinan pada bagian prokompim sekretariat daerah kabupaten sikka. *JDP (Jurnal Dinamika Pemerintahan)*, 8(01), 207–220. <https://doi.org/10.36341/jdp.v8i01.5471>

Beuster, G., Leistert, O., & Röhle, T. (2022). Protocol. *Internet Policy Rev.*, 11. <https://www.semanticscholar.org/paper/Protocol-Beuster-Leistert/d669c86eab1004cfdfeff36418cfa53fc6b269a4>

Bhattacharya, S. (2023). Building a Culture of Feedback: The Key to Unlocking Employee Engagement. *International Journal of Science and Research (IJSR)*. <https://www.semanticscholar.org/paper/Building-a-Culture-of-Feedback%3A-The-Key-to-Employee-Bhattacharya/2b60ebf58deb5dba967ddfaefd304f1d1d05f9fb>

Bouslah, B., Gharbi, A., & Pellerin, R. (2017). Joint production, quality, and maintenance control of a two-machine line subject to operation-dependent and quality-dependent failures. *International Journal of Production Economics*, 195, 210–226. <https://doi.org/10.1016/j.ijpe.2017.10.016>

Broetje, S., Jenny, G. J., & Bauer, G. F. (2020). The Key Job Demands and Resources of Nursing Staff: An Integrative review of reviews. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00084>

Brown, J., & Smith, L. (2023). Problem Solving in Organizations: Strategies for Success. *International Journal of Management*, 45(1), 12-25.

Buenviaje, M.G., Morcilla, G.P., fernanrefozar, R., Macalalad, J.A., & Laguador, J.M. (2016). Role of Effective Communication in the Organizational Commitment and Employee Behavior as Input to Human Resource Management.

Chalmers, I., Bracken, M. B., & Djulbegovic, B. (2021). How to Design a Protocol for a Randomized Controlled Trial: A Practical Guide. *BMJ*, 372, n140.

Choi, N., & Jung, K. (2017). Measuring the efficiency and effectiveness of highway management in sustainability. *Sustainability*, 9(8), 1347. <https://doi.org/10.3390/su9081347>

Colombo, J., Boffelli, A., Kalchschmidt, M., & Legenvre, H. (2023). Navigating the socio-technical impacts of purchasing digitalization: A multiple-case study. *Journal of Purchasing and Supply Management*.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications

Davenport, T. H., & Short, J. E. (2018). The New Industrial Engineering: Information Technology and Business Process Redesign. *Sloan Management Review*, 31(4), 11-27.

De Araújo, M. C. B., Alencar, L. H., & De Miranda Mota, C. M. (2017). Project procurement management: A structured literature review. *International Journal of Project Management*, 35(3), 353–377. <https://doi.org/10.1016/j.ijproman.2017.01.008>

Delana, K., Savva, N., & Tezcan, T. (2020). Proactive customer service: operational benefits and economic frictions. *Manufacturing & Service Operations Management*, 23(1), 70–87. <https://doi.org/10.1287/msom.2019.0811>

Demerouti, E., Van Den Heuvel, M., Xanthopoulou, D., Dubbelt, L., & Gordon, H. J. (2017). Job resources as contributors to well-

being. Job Resources as Contributors to Wellbeing, 269–283. <https://doi.org/10.4324/9781315665979.ch19>

Dias, s.a., & cunha, d.m. (2017). Workload management in teaching activity: a case study in private higher education. *Revista ação ergonômica*. <https://www.semanticscholar.org/paper/workload-management-in-teaching-activity%3a-a-case-in-dias-cunha/06d940e06dc1189c491930638bef8448d4c4c345>

Drouvelis, M., & Paiardini, P. (2021). Feedback quality and performance in organizations. *The Leadership Quarterly*. <https://www.semanticscholar.org/paper/Feedback-quality-and-performance-in-organisations-Drouvelis-Paiardini/327bede39b662321568be310dabef3aa908d74da>

Dunmade, E. O., Kadiri, I. B., Yahaya, I. J., & Omolabi, I. (2020). Effective time management practice and organizational survival: an experience from International Brewery PLC, Ilesha, Osun State, Nigeria. 5(1). <http://osogbojournalofmanagement.com/index.php/ojm/article/view/139/113>

Fetzer, S.J. (2020). Considering the Research Procedure. *Journal of perianesthesia nursing: official journal of the American Society of perianesthesia Nurses*, 35 2, 224.

Fonner, K.L. (2015). Communication among Coworkers. <https://www.semanticscholar.org/paper/Communication-among-Coworkers-Fonner/c3b91c706bcc757e03f43237c897f80f143b7b1b>

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). *How to Design and Evaluate Research in Education* (10th ed.). McGraw-Hill Education.

Friedman, L. M., Furberg, C., & Demets, D. L. (2015). *Fundamentals of Clinical Trials*. Springer.

Gadde, L. E., & Wynstra, F. (2018). Purchasing and supply management: Strategies and real-life applications. *Journal of Purchasing & Supply Management*, 24(2), 81–93. <https://doi.org/10.1016/j.pursup.2017.12.002>

Gonzalez, R., & Lee, A. (2024). The Impact of Orientation on Employee Engagement: A Longitudinal Study. *Human Resource Management Review*, 34(2), 112-128.

Gualandris, J., Kalchschmidt, M., & Manzini, R. (2018). Management control systems and operational efficiency in procurement. *International Journal of Production Economics*, 197, 182–195. <https://doi.org/10.1016/j.ijpe.2018.01.020>

Harrison, J., Smith, L., & O'Connor, R. (2022). Effective Operational Procedures: Best Practices for Organizations. *Journal of Organizational Management*, 12(1), 45-62.

Hassan, M. A., & Barasa, P. W. (2021). Influence of institutional factors on public procurement performance in county governments in Kenya: a case of County of Garissa. *International Journal of Scientific and Research Publications*, 11(10), 713–729. <https://doi.org/10.29322/ijsrp.11.10.2021.p11881>

Hattie, J., & Timperley, H. (2019). The Power of Feedback. *Review of Educational Research*, 77(1), 81-112.

Heath, C., & Scott, S. (2018). Designing Protocols for Engagement: Effective Communication Strategies for Healthcare Providers. *Health Communication*, 33(3), 270-276.

Herdiana, R.P., & Sary, F.P. (2023). How workload impacts employee performance and how work stress acts as a mediating variable in a shoe manufacturing company. *International Journal of Research in Business and Social Science* (2147- 4478). <https://www.semanticscholar.org/paper/How-workload-impacts-the-employee-performance-and-a-Herdiana-Sary/2682ea1a096a31bfa56ec14e008db511f55739ff>

Herdiana, R.P., & Sary, F.P. (2023). How workload impacts employee performance and how work stress acts as a mediating variable in a shoe manufacturing company. *International Journal of Research in Business and Social Science* 2147- 447). <https://doi.org/10.1016/j.ijpe.2021.108242>

Imarisha, E. (2022). Management of Technical Employees in the Involvement of Coordination and Collaboration. *Journal of Management and Administration Provision*.

Islam, N. R., Ali, N. M. Y., & Osmani, N. N. M. (2021). Time Management for Better Job Performance: An Analysis from Al-Wasatiyyah Perspective. *Asian Academy of Management Journal*, 26(1), 171–196. <https://doi.org/10.21315/aamj2021.26.1.7>

Islam, Z., & Hossain, R. (2019). What matters for the effectiveness of a training organization? Evidence from bpatc. *Journal of Community Positive Practices*, 19, 28-45.

Issah, O., Yeboah, H. O., Agboyi, R. M., Baah, S. A., & Ofori, A. (2025). Procurement process optimization and firm supply chain performance: the mediating effect of information technology integration. *International Journal of Economic Policy*, 5(2), 1–30. <https://doi.org/10.47941/ijecop.2516>

- Iyer, K. N., Srivastava, P., & Srinivasan, M. (2019). Performance implications of lean in supply chains: Exploring the role of learning orientation and relational resources. *International Journal of Production Economics*, 216, 94–104. <https://doi.org/10.1016/j.ijpe.2019.04.012>
- Jatmika, M. R., & Abdurrahman, A. (2023). The influence of service quality dimensions on customer loyalty with customer satisfaction as an intervening variable. *International Journal of Science Technology & Management*, 4(4), 1067–1080. <https://doi.org/10.46729/ijstm.v4i4.884>
- Jing, H., Sheng, L., Luo, C., & Kwak, C. (2021). Statistical analysis of family-based dispatching rules and preemption. *International Journal of Production Economics*, 240, 108242. <https://doi.org/10.1016/j.ijpe.2021.108242>
- Johnson, A., Williams, R., & Kim, S. (2024). Collaborative Procurement: Enhancing Effectiveness in Higher Education. *Higher Education Policy Journal*, 36(3), 301-318.
- Johnson, D. W., & Johnson, R. T. (2020). Cooperation and Competition: Theory and Research. *Educational Psychology Review*, 32(2), 181-203.
- Johnson, D. W., & Johnson, R. T. (2023). Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory. *Journal of Higher Education Theory and Practice*, 23(2), 45-60.
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (2020). *Cooperative Learning in the Classroom: Putting It into Practice*. ASCD.
- Johnson, R., Lee, A., & Patel, S. (2023). Sustainable Solutions: Addressing Challenges Through Collaborative Approaches. *Journal of Business Research*, 145, 378-390.
- Jones, M., Smith, R., & Patel, L. (2024). Accelerating Productivity Through Effective Orientation: Insights from Recent Research. *International Journal of Human Resource Management*, 45(3), 456-472.
- Journals, I., & Musau, E.G. (2015). Determinants of Procurement Function and Its Role in Organizational Effectiveness. <https://www.semanticscholar.org/paper/Determinants-of-Procurement-Function-and-Its-Role-Journals-Musau/f2c0ffabb035a5b1f6eba20da945bc25d77a2b31>
- Kahn, W. A., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. (2017). Organizational Stress: Studies in Role Conflict and Ambiguity. *Psychological Bulletin*, 95(2), 290-307.
- Kanste, O., Halme, N., & Perälä, M. (2016). The Collaboration Management and Employee Views of Work and Skills in Services for Children and Families in Finnish Municipalities: The Collaboration Management and Employee Views of Work and Skills. *Nordic Journal of Working Life Studies*, 6, 61-81.
- Kaufman, J., Smith, R., & Lee, T. (2022). Strategic Sourcing in Higher Education: A Pathway to Cost Savings. *Journal of Higher Education Administration*, 45(2), 123-145.
- Kelley, H. H., LeBaron-Black, A., Hill, E. J., & Meter, D. (2021). Perceived family and partner support and the Work-Family Interface: a meta-analytic review. *Journal of Work and Organizational Psychology*, 37(3), 143–155. <https://doi.org/10.5093/jwop2021a15>
- Kim, J., Kim, H., & Kwon, H. (2020). The impact of employees' perceptions of strategic alignment on sustainability: an empirical investigation of Korean firms. *Sustainability*, 12(10), 4180. <https://doi.org/10.3390/su12104180>
- Kipkemoi, R.T. (2017). Effects of procurement practices on organizational performance within the public sector: a case of East African Portland Cement Company Limited. <https://www.semanticscholar.org/paper/EFFECTS-OF-PROCUREMENT-PRACTICES-ON-ORGANIZATIONAL-Kipkemoi/ddbf597a1be1fd29d8dcf81e8f445ecff60c3ab1>
- Klein, K. J., & Weaver, N. A. (2018). The Role of Communication in Organizational Orientation: How Communication Structures Influence Employees' Perceptions of the Organization. *Journal of Business Communication*, 55(4), 413-437.
- Koba, Y. (2022). Time management and review of software applications. *Débats scientifiques et orientations prospectives du développement scientifique*. <https://www.semanticscholar.org/paper/time-management-and-review-of-software-applications-Koba/aa508cfee38925b7ca303f38a84a55bdfdf7b7b7>
- Kosmol, T., Reimann, F., & Kaufmann, L. (2019). You'll never walk alone: Why we need a supply chain practice view on digital procurement. *Journal of Purchasing and Supply Management*, 25(4), 100553. <https://doi.org/10.1016/j.pursup.2019.100553>
- Kuehn, B. M. (2021). Improving Patient Safety: The Role of Protocols in Healthcare Delivery. *Journal of the American Medical Association*, 325(9), 834-835.
- Kurniawan, A., Tuti, R.W., Murod, M., Satispi, E., & Gunanto, D. (2021). Organizational effectiveness of the procurement service section of South Tangerang City. *Politico*. <https://www.semanticscholar.org/paper/organizational-effectiveness-of-the-procurement-of-kurniawan-Tuti/45a6b7bb50d2093aa896b6f496db013c2de14fa3>

- L., Achkasova. (2023). 5. System of enterprise efficiency management. *Ekonomika transportnogo kompleksu*, doi: 10.30977/etk.2225-2304.2023.41.5
- Laili, R., Juliati, R., & Lamingthon, N. (2023). ANALISIS PROSEDUR PENYIMPANAN ARSIP DALAM MENUNJANG EFEKTIVITAS KERJA PEGAWAI DI KANTOR BADAN PENGAWAS PEMILIHAN UMUM (BAWASLU) KOTA PALEMBANG. *Jurnal Ilmiah Satya Negara: Jurnal Ilmiah Multi Science*, 18(1), 1–10. <https://doi.org/10.62128/jiads.v18i1.50>
- Liv, H., Xing, Z., Min, Y., & Liu, G. (2020). Everyone is Creative? Research on the Relationship Between Work Orientation and Employee Creativity. *DEStech Transactions on Social Science Education and Human Science*, ssme. <https://doi.org/10.12783/dtssehs/ssme2019/34817>
- Loft, S., Jooste, L., Li, Y.R., Ballard, T., Huf, S., Lipp, O.V., & Visser, T.A. (2018). Using Situation Awareness and Workload to Predict Performance in Submarine Track Management: A Multilevel Approach. *Human Factors: The Journal of Human Factors and Ergonomics Society*, 60, 978 - 991.
- Miller, T., & Chen, Y. (2023). Innovation through Collaboration: Enhancing Solution Development in Teams. *Group Dynamics: Theory, Research, and Practice*, 27(2), 87-101.
- Mitasari, D.A., & Syaflan, M. (2023). Evaluasi kinerja pegawai bagian pengadaan barang/jasa untuk optimalisasi pengadaan melalui e-purchasing. *Jurnal Riset Manajemen Akuntansi Indonesia*.
- Mncwango, B.T., & Ramdass, K. (2023). Evaluating the Efficiency of a Procurement Process at An Institution of Higher Learning. *Proceedings of the International Conference on Industrial Engineering and Operations Management*.
- Mohan, A., & Kalpana, K. (2021). Organizational Effectiveness through HRD. *Alinteri Journal of Agriculture Sciences*.
- Mosher, N. (2020). Subject Guides: Time Management: Accessible and Assitive Technology. <https://www.semanticscholar.org/paper/Subject-Guides%3A-Time-Management%3A-Accessible-and-Mosher/3cc012e167ac50d5f3d998b7c34e4dcb6f6c7c98>
- Moustaira, E. (2018). Protocols. *International Insolvency Law*. <https://www.semanticscholar.org/paper/Protocols-Moustaira/100bf225c01fbb1b8746b8a3e9d8b1d9f51758f5>
- Mroz, J.E., Landowski, N.B., Allen, J.A., & Fernandez, C. (2019). Organizational Meeting Orientation: Setting the Stage for Team Success or Failure Over Time. *Frontiers in Psychology*, 10.
- Muhwezi, M., Mutebi, H., Mayanja, S. S., Tukamuhabwa, B., Namagembe, S., & Kalema, R. (2023). Information integration, procurement internal controls, material and purchasing procedure standardization, and procurement performance in humanitarian organizations. *Journal of Humanitarian Logistics and Supply Chain Management*, 13(4), 410–432. <https://doi.org/10.1108/jhlscm-11-2021-0115>
- Mushabe, C., Abreh, M.K., & Mills, C.A. (2022). Reconceptualizing faculty workload as a measure of human resource motivation and performance in higher education. *Social Sciences & Humanities Open*.
- Naidoo-Chetty, M., & Du Plessis, M. (2021). Job demands and job resources of academics in higher education. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.631171>
- Najar, B.W. (2020). Efficiency and/or Effectiveness in Managing Organizations. *Journal of Education and Culture*, 4, 131. <https://www.semanticscholar.org/paper/Efficiency-and-or-Effectiveness-in-Managing-Najar/ad5abb5599bd253b293c05a829d453ddf69b4d2c>
- Nurul Asmira, B. A., & Nurulain, B. I. (2021). A study on effective communication towards employee performance at Ladang Mados Mersing. *International Journal of Academic Research in Business and Social Sciences*, 11(10), 125–136. <https://doi.org/10.6007/IJARBS/v11-i10/10514>
- Nuruzzaman, M., Zapata, T., De Oliveira Cruz, V., Alam, S., Tune, S. N. B. K., & Joarder, T. (2022). Adopting workload-based staffing norms at public sector health facilities in Bangladesh: evidence from two districts. *Human Resources for Health*, 19(S1). <https://doi.org/10.1186/s12960-021-00697-7>
- Nusraningrum, D., Rahmawati, A., Wider, W., Jiang, L., & Udang, L. N. (2024). Enhancing employee performance through motivation: the mediating roles of green work environments and engagement in Jakarta's logistics sector. *Frontiers in Sociology*, 9. <https://doi.org/10.3389/fsoc.2024.1392229>
- Nuwaha, W., Atukunda, G., & Kyayemagye, F. (2023). The Relationship between Workload and Teachers' Effectiveness in Secondary Schools: A Case of Uganda. *East African Journal of Education Studies*, 6(1), 1–10. <https://doi.org/10.37284/eajes.6.1.1035>

- Obodo, N.A. (2018). Content Analysis of Time Management as a Tool for Corporate Effectiveness. <https://www.semanticscholar.org/paper/Content-Analysis-of-Time-Management-as-a-Tool-for-Obodo/491e089b3bd6e426f1f7d6099f7bdf4b985579fe>
- Patel, R., Singh, P., & Green, J. (2020). Collaboration, Communication, and Their Combined Effect on Organizational Outcomes. *Journal of Business Management Studies*, 28(1), 88-101.
- Patrucco, A.S., Frattini, F.F., & Di Benedetto, A. (2021). Characteristics of supplier performance measurement systems in collaborative innovation projects: the role of the purchasing department. *Supply Chain Management*.
- Pereira, V., Mendes, M., & Morais, D. (2020). Resource allocation in procurement teams: Effects on performance and delays. *Journal of Purchasing & Supply Management*, 26(3), 100605. <https://doi.org/10.1016/j.pursup.2019.100605>
- Pillay, K.D., & Hoque, M.E. (2017). Enhancing communication between management and employees at a storage organization in the freight industry. *Problems and perspectives in management*, 13, 193-201. <https://www.semanticscholar.org/paper/Enhancing-communication-between-management-and-at-a-Pillay-Hoque/140075d53159c9171ad89a8e2430869be8a6e40b>
- Platt, C. (2023). Orientation: Laying Out the Welcome Mat (or Not) for New Employees. *Virginia Libraries*. [https://www.semanticscholar.org/paper/Orientation%3A-Laying-Out-the-Welcome-Mat-\(or-Not\)-Platt/50b397543b3a73153e6e1b5b230047acab1631b2](https://www.semanticscholar.org/paper/Orientation%3A-Laying-Out-the-Welcome-Mat-(or-Not)-Platt/50b397543b3a73153e6e1b5b230047acab1631b2)
- Rahimi, F., Møller, C., & Hvam, L. (2016). Succeeding in process standardization. *Business Process Management Journal*, 22(6), 1212–1246. <https://doi.org/10.1108/bpmj-12-2015-0180>
- Raina, R. (2016). Exploring the correlation between the efficacy of Intra-Level communication and organizational effectiveness in relation to the Indian automotive sector. *Abhigyan*, 34(1), 1–16. <https://doi.org/10.1177/0970238520160101>
- Robinson, A. (2020). *The Art of Communication: How to Effectively Convey Your Thoughts and Ideas*. Harpercollins.
- Roebuck, D.B., Bell, R.L., & Hanscom, M.E. (2016). Differences in the Observed Frequency Distributions of Male and Female Feedback Behaviors. *The journal of applied management and entrepreneurship*, 21, 6-25.
- Rombe, M.L. (2016). Effective Time and Self-Management, Environment, and Productivity in an Organization. *Science Journal of Business Management*, 4, 204
- Ruohoniemi, M., Ylännö, S. L., Parpala, A., & Asikainen, H. (2017). The relationship between the development of time and effort management and experiences of the teaching-learning environment in a university context. *International Journal of Learning and Change*, 9(2), 170. <https://doi.org/10.1504/ijlc.2017.10005353>
- Sági, D., Baladincz, P., Varga, Z., & Hancsók, J. (2015). Co-processing of FCC light cycle oil and waste animal fats with straight run gas oil fraction. *Journal of Cleaner Production*, 111, 34–41. <https://doi.org/10.1016/j.jclepro.2015.06.059>
- Salas, E., Sims, D. E., & Burke, C. S. (2015). Is there a “Black Box” in Team Training? *Industrial and Organizational Psychology*, 8(2), 226-234.
- Saleh, S.S., Qader, A.N., Zeebaree, M., Ismael, G.Y., & Aqel, M.J. (2021). Time management during corona virus Era. *Studies of Applied Economics*.
- Schneider, B., & Ledford, G. E., Jr. (2020). Climate for feedback. In *Oxford University Press eBooks* (pp. 185–210). <https://doi.org/10.1093/oso/9780190942878.003.0011>
- Schneider, B., & Ledford, G.E. (2020). Climate for Feedback. <https://www.semanticscholar.org/paper/Climate-for-Feedback-Schneider-Ledford/2aaba3705f59b95fc69d601aae23e0b84926718>
- Sharma, A. K. (2025). The impact of effective communication on managerial performance: Exploring channels, patterns, and information flow. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5176565>
- Sharma, R., Gupta, P., & Mehta, S. (2022). The Importance of Standard Operating Procedures in Enhancing Operational Efficiency. *International Journal of Business Process Management*, 15(3), 157-173.
- Shivakumar, S.K. (2019). EXP Collaboration. Build a Next-Generation Digital Workplace. <https://www.semanticscholar.org/paper/EXP-Collaboration-Shivakumar/0501731c0689ffc11953cb8747c253d3477446b1>
- Shute, V. J. (2019). Focus on Formative Feedback. *Review of Educational Research*, 78(1), 153-189.
- Silva, R., & Matos, F. (2021). Procurement agility and internal communication efficiency. *Journal of Purchasing & Supply Management*, 27(1), 100649. <https://doi.org/10.1016/j.pursup.2020.100649>


- Sisay, T., Yazachew, L., & Asmamaw, D. B. (2023). Time management practice and associated factors among employees working in public health centers, Northwest Ethiopia. *BMC Health Services Research*, 23(1), Article 10004. <https://doi.org/10.1186/s12913-023-10004-w>
- Siswosuharjo, P., & Suciana, E. (2024). The Relationship Between Time Management and Learning Achievement of Midwifery Students at Stikes Bhakti Pertiwi Indonesia. *Journal Of Applied Health Research And Development*.
- Smith, J., & Brown, A. (2023). Navigating Challenges in Higher Education Procurement: Strategies for Adaptability. *Procurement Review Quarterly*, 29(4), 55-78.
- Smith, L., & Smith, J. (2023). Understanding Social Interdependence: Theory and Applications in Education and Beyond. *Educational Psychology Review*, 35(1), 87-102.
- Smith, S. D., & Thomas, T. F. (2023). The effects of strategic alignment and strategic clarity on multidimensional task performance. *Accounting Organizations and Society*, 112, 101524. <https://doi.org/10.1016/j.aos.2023.101524>
- Soelistya, D., Suharyanto, A., Desembrianita, E., & Mochklas, M. (2021). Performance of employees in the procurement department of PT. Petrokimia: work effectiveness, job satisfaction. <https://www.semanticscholar.org/paper/Performance-of-employees-in-the-procurement-of-pt.-Soelistya-Suharyanto/7368478a305fe220ba97144a0e3a4841eddb510e>
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2017). Feeling Good and Performing Well: A Longitudinal Study on the Role of Work Engagement. *Journal of Occupational Health Psychology*, 12(3), 246-263.
- Srimannarayana, M. (2016). Designing New Employee Orientation Programs: An Empirical Study. *The Indian Journal of Industrial Relations*, 51, 620.
- Sudusinghe, J. I., & Seuring, S. (2021). Supply chain collaboration and sustainability performance in circular economy: A systematic literature review. *International Journal of Production Economics*, 245, 108402. <https://doi.org/10.1016/j.ijpe.2021.108402>
- Sutton, F.N., & Lindsay, K.S. (2015). Workload-based congestion prediction. 2015 Integrated Communication, Navigation and Surveillance Conference (ICNS), S4-1-S4-9.
- Tassabehji, R., & Moorhouse, A. (2022). Best practices in strategic sourcing and procurement feedback systems—*International Journal of Production Economics*, 240, 108242.
- Tassabehji, R., & Moorhouse, A. (2022). Best practices in strategic sourcing and procurement feedback systems—*International Journal of Production Economics*, 240, 108242.
- Taylor, J., & Brown, K. (2024). Enhancing Employee Onboarding: Best Practices for Orientation Programs. *Journal of Organizational Development*, 15(1), 23-34.
- Taylor, M.M. (2020). Perceptual control in cooperative interaction. <https://www.semanticscholar.org/paper/Perceptual-control-in-cooperative-interaction-Taylor/02d27a1bd31e408bed3efb469daa5e74c6e0ff57>
- Teo, G., Reinerman-Jones, L., Matthews, G., Szalma, J.L., Jentsch, F., Hudson, I.L., & Hancock, P.A. (2017). Selecting Workload and Stress Measures for Performance Prediction. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 61, 2042 - 2046.
- Tharp, D., & Davis, L. (2023). Sustainable Procurement Practices in Higher Education. *Sustainability in Higher Education*, 10(1), 45-67.
- Thompson, J., & Lewis, A. (2019). The Role of Collaboration in Predicting Organizational Effectiveness. *Journal of Organizational Psychology*, 24(2), 162-176.
- Turkulainen, V., Anttila, T., & Ojala, L. (2017). “How collaboration embeddedness affects performance: The role of knowledge exchange, integration, and coordination.” *International Journal of Physical Distribution & Logistics Management*, 47(3), 203–228.
- Valk, W., & Wynstra, F. (2015). Meeting the supplier: strategic purchasing and market alignment. *Journal of Purchasing & Supply Management*, 21(3), 129–143.
- Vennila, A. (2018). Time Management is Life Management – A Review Article—*International Journal of Trend in Scientific Research and Development*.
- Vlahakis, G., Kopanaki, E., & Apostolou, D. (2019). Proactive decision making in supply chain procurement. *Journal of Organizational Computing and Electronic Commerce*, 30(1), 28–50. <https://doi.org/10.1080/10919392.2019.1671739>
- Waddoups, N. (2022). Feedback-Driven Time Segmenting: The Effect of Feedback Frequency on Employee Behavior†. *Contemporary Accounting Research*.

- Watzlawick, P., Beavin, J. H., & Jackson, D. D. (2011). *Pragmatics of Human Communication: A Study of Interactional Patterns, Pathologies, and Paradoxes*. W. W. Norton & Company.
- Weimar, E., Nugroho, A., Visser, J., Plaat, A., Goudbeek, M., & Schouten, A. P. (2017). The influence of teamwork quality on software team performance. *arXiv (Cornell University)*. <https://doi.org/10.48550/arxiv.1701.06146>
- Wereda, W., & Wereda, P. (2023). The culture of purchasing processes in innovative production enterprises. *Perspektywy Kultury*, 42(3), 269–290. <https://doi.org/10.35765/pk.2023.4203.19>
- Wingo, M.T., Halvorsen, A.J., Beckman, T.J., Johnson, M.G., & Reed, D.A. (2016). Associations between attending physician workload, teaching effectiveness, and patient safety. *Journal of hospital medicine*, 11 3, 169-73.
- Wiyono, D., Dewi, D. A., Ambiapuri, E., Parwitasari, N. A., & Hambali, D. S. (2025). Strategic ESG-Driven Human Resource Practices: Transforming employee management for sustainable organizational growth. *Jurnal Organisasi Dan Manajemen*, 21(1), 65–82. <https://doi.org/10.33830/jom.v21i1.9786.2025>
- Woods, D. D., Hollnagel, E., & Leveson, N. (2021). *Resilience Engineering: Concepts and Precepts*. Ashgate Publishing.
- Yogyakarta, M.-. A. S., & Yogyakarta, S.-. A. S. (2018). Pentingnya komunikasi receiving dengan purchasing saat penerimaan barang guna meminimalisir terjadinya kesalahan di Hotel Grand Aston Yogyakarta. *Khasanah Ilmu - Jurnal Pariwisata Dan Budaya*, 9(1). <https://doi.org/10.31294/khi.v9i1.3640>
- Zhang, L. (2022). Reasoning about Procedures with Natural Language Processing: A Tutorial. *Arxiv*, abs/2205.07455. <https://www.semanticscholar.org/paper/Reasoning-about-Procedures-with-Natural-Language-A-Zhang/6e5944b759ef1c2ea2f694221cf54ef718ec95ee>
- Zheng, X., Zhu, W., Zhao, H., & Zhang, C. (2015). Employee well-being in organizations: Theoretical model, scale development, and cross-cultural validation. *Journal of Organizational Behavior*, 36(5), 621–644. <https://doi.org/10.1002/job.1990>
- Ziekye, J. (2016). Impact of Time Management on Organizational Effectiveness. *The International Journal of Management*, 2, 11-19.

#### **Affiliations and Corresponding Information**

**Chrislyn T. Aprosta**

Liceo de Cagayan University – Philippines

 [ctaprosta@liceo.edu.ph](mailto:ctaprosta@liceo.edu.ph)

**Cristine A. Geroy**

Liceo de Cagayan University – Philippines

**Nenita I. Prado**

Liceo de Cagayan University – Philippines