© Volume 2, Issue 8, ***August*** 2026 | JATIR
ISSN: 3139-8464 (p)

Operational Factors and Operational Productivity of Private Higher Education Institutions in Valencia City, Bukidnon

[1]Carl Justin Nicart, [2]Christian Andre M. Tabunan, [3]James Lloyd N. Gabitano
[4]Zhia B. Belisario

[1,2]Student Researcher Bachelor of Science in Entrepreneurship Department, IBA College of Mindanao, Inc., Valencia City, Bukidnon, Philippines
[3]Research Adviser, Bachelor of Science in Entrepreneurship IBA College of Mindanao, Inc., Valencia City, Bukidnon, Philippines
[4]Program Head Bachelor of Science in Entrepreneurship IBA College of Mindanao, Inc., Valencia City, Bukidnon, Philippines

***Abstract*—This study aimed to describe the level of operational factors of private higher education institutions in Valencia City, Bukidnon. Specifically, it seeks to answer in terms of technology adoption, resource management, and human resource practices, assess the level of operational productivity of private higher education institutions in terms of resource use and employee productivity, and examine the significant relationship between operational factors and operational productivity of private higher education institutions. Using a descriptive-correlational research design, one hundred respondents consisting of faculty and staff from private higher education institutions in Valencia City, Bukidnon, were selected through stratified sampling as respondents of the study and data were collected through a researcher-made instrument survey questionnaire. Statistical analyses, including mean, standard deviation, and Pearson Product Moment Correlation, were applied to measure the significant relationship between operational factors of private higher education institutions. The findings showed that technology adoption, resource management, and human resource practices all obtained high overall mean scores interpreted as Excellent Implementation, indicating favorable perceptions among respondents regarding institutional operational practices. Likewise, operational productivity in terms of resource utilization and employee productivity received high ratings interpreted as Outstanding Productivity, suggesting that institutional resources and employee performance effectively support organizational operations.**

***Index Terms*—Operational Factors, Operational Productivity, Technology Adoption, Resource Management, Human Resource Practices, Private Higher Education Institutions.**

ISSN: 3139-8464 (p)

I. INTRODUCTION

Private colleges in Valencia City, Bukidnon significantly influence access to education for the area's underserved communities. The region's rural setting creates difficulties, but it simultaneously offers access, this is a strategic spot in Mindanao. These schools encounter many everyday difficulties: funding gaps, old facilities, personnel burdened excessively, and outdated technology. These limitations not only hinder operations, they reduce enrollment, lower program quality, and slow down administrative duties just as the country asks for more skilled graduates. All relies on how well these schools manage their resources, invest in people, improve their processes, and introduce new technology. Focusing on these areas boosts student retention, reduces costs, and increases the speed of their service delivery.

Despite how important these issues are, there is limited research currently accessible regarding what really functions. This study explores how these factors drive productivity in private higher education institutions in Valencia City. It offers practical recommendations which may assist these institutions maintain stability while supporting broader reforms in the context of Philippine higher education.

This study aimed to determine the significant link between operational factors and operational productivity of private higher education institutions in Valencia City, Bukidnon. It focuses on analyzing how technology adoption, resource management, and human resource practices relate to resource utilization and employee productivity. Using a descriptive correlational approach grounded in the Resource-Based View Theory, the research explores the statistical relationships among these variables.

II. LITERATURE REVIEW

In order to give private higher education institutions practical knowledge into their operational changes, the solution is to describe the relationship between operational factors and productivity outcomes rather than proving causation. Operational aspects and productivity metrics are frequently connected. According to Al-Mamun & Fazal, 2018, efficiency and customer satisfaction are positively connected with the implementation of technology. However, because inefficiencies lower overall production, resource waste has a negative correlation with resource utilization (Katua, 2016). Higher productivity levels are consistently linked to human resource management strategies such employee engagement, motivation, and training (Borazon & Supangco, 2020). Operational procedures and resource management have been proven to have a significant effect on private higher education institutions performance in the Philippine environment, highlighting the significance of investigating these linkages in Valencia City.

Moreover, Blended Learning (BL) has increasingly been utilized in higher education as it has the advantages of both traditional and online teaching approaches (Poon 2016). According to Ghazal et al. (2018) findings from prior studies indicated that blended learning approach enhances students'

learning engagement and experience as it creates a significant influence on students' awareness of the teaching mode and learning background.

In another study, the Asian Productivity Organization (2017) emphasized that raising productivity in higher education required strategic management of financial and human resources. The results indicated that institutions implementing resource monitoring systems and performance evaluation mechanisms improved institutional effectiveness and educational outcomes. The study recommended continuous investment in resource planning and management practices.

Allui and Sahni (2016) stated that strategic human resource management practices significantly improved employee performance and institutional effectiveness in higher education institutions. The findings revealed that recruitment, training, compensation, and employee development positively influenced organizational productivity and employee satisfaction. The study emphasized that effective HR practices enhanced institutional competitiveness.

According to Agasisti (2016), the productivity and efficiency of public higher education institutions were greatly influenced by effective resource utilization. The findings indicated that institutions maximizing financial and operational resources achieved higher institutional productivity and sustainability.

Additionally, Menezes (2018) explained that work environment significantly influenced employee productivity in universities. The study found that supportive workplace conditions, effective communication, and positive organizational culture improved employee performance and job satisfaction.

III. MATERIALS AND METHODS

Research Design

This study employed a descriptive correlational research design to investigate the relationships between operational factors; technology adoption, resource management, human resource practices and operational productivity; resource utilization and employee performance in Private Higher Education Institutions in Valencia City, Bukidnon. A descriptive-correlational design is being used in the present study to allow the researchers to describe the present state of the factors and the outcomes of productivity within private higher education institutions. This design allowed the researchers to study the statistical associations of the variables without any manipulation. The descriptive part of the design aimed to develop an accurate depiction of the way private higher education institutions in Valencia City, Bukidnon, presently use of technology, manage their resources, and execute their human resource management practices and how these practices relate to resource management and employee productivity. The correlational part of the design aimed to establish if the factors of institutions operations significantly relate to institutions outcomes.

This quantitative approach described variable levels using means and standard deviations while examining statistical associations via Pearson's correlation coefficient, without implying causality.

ISSN: 3139-8464 (p)

Participants / Respondents

The subject respondents of the study include a total of one hundred (100) consisting of administrative personnel, faculty, and staff from private higher education institutions in Valencia City, Bukidnon. Firstly, these individuals were selected because they are directly involved in operational decision-making, including adopting new technologies, managing resources, and overseeing human resources. Consequently, as primary decision-makers, they are considered the most suitable sources of information regarding operational factors and productivity outcomes in their businesses.

Data Gathering Procedure

The data gathering process followed a systematic and ethical approach to meet institutional guidelines. First, the researchers prepared and sent a formal request letter to the President of IBA College of Mindanao, Inc. The letter explained the objectives, significance, and method of the research to gain institutional approval. Once the researchers have the President's endorsement, the researchers coordinated with other private higher education institutions in Valencia City, Bukidnon, to ask for permission to conduct the study.

After receiving approval from private higher education institutions, the researchers reached out to the institutions Research Director's Office officials to gain access to the respondents. They clearly outlined the purpose and scope of the study to ensure transparency and encourage cooperation. This coordination helped create a schedule for distributing and collecting the research instruments.

Next, the survey questionnaires were given to the respondents selected through stratified random sampling. Before handing out the instrument, the researchers explained the study's objectives, procedures, and expected duration. They obtained informed consent from each participant, highlighting that participation is voluntary and that respondents can withdraw at any time without penalty.

Respondents have enough time to complete the questionnaire, ensuring they can provide thoughtful and accurate responses. The researchers were available during this process to clarify any questions while avoiding any influence on the participants' answers. After completion, the researchers collected and reviewed the questionnaires to ensure all responses are complete and consistent.

Statistical Analysis

To ensure a systematic analysis and a clear interpretation of the data, appropriate statistical tools were used for each problem statement. The choice of statistical methods depended on the nature of the variables and the study's goals. To answer in Problem 1, which seeks to determine the level of operational factors among private higher education institutions in Valencia City, Bukidnon, the mean and standard deviation were used. The mean provided the average responses of the respondents, while the standard deviation measured how much their responses vary. These statistics clearly described the overall level of community preparedness. For Problem 2, which aimed to determine the level of operational productivity, the mean and standard deviation were used. These tools helped the researcher assess the average perception of respondents about public safety

initiatives and determine how consistent their responses are. And for Problem 3, which investigates whether a significant relationship exists between operational factors and operational productivity, the Pearson Product Moment Correlation was also used. All hypotheses were tested at a 0.05 level of significance to determine if there is statistical significance and to guide decision-making regarding the null hypotheses.

IV. RESULTS AND DISCUSSION

Table 1 shows that the overall mean for the respondents' distribution on the level of operational factors as regards to technology adoption is 3.40, with a standard deviation of 0.76, described as Strongly Agree and interpreted as Excellent Implementation. The result indicates that respondents generally perceive the institution as effectively implementing technology in its operations. The relatively moderate standard deviation suggests that respondents' perceptions are fairly consistent. This further implies that technology adoption has become integrated into institutional processes and contributes positively to operational efficiency and educational activities.

Among all survey statements, the highest mean score is 3.64 with a standard deviation of 0.72 for the statement, "Digital tools help make tasks easier and faster." This is described as Strongly Agree and interpreted as Excellent Implementation. The result indicates that respondents strongly recognize the benefits of digital tools in improving efficiency and simplifying tasks within the institution. The relatively low standard deviation suggests that respondents have similar perceptions regarding the usefulness of technology in daily activities. The study's conclusions are corroborated by a study by Venkatesh et al. (2016), which highlighted that people are more inclined to embrace and use technology when they believe it will improve job performance and lessen the effort needed to finish tasks. According to their research, a key factor affecting technology adoption and usage is performance expectancy, or the conviction that technology increases productivity and work efficiency.

Meanwhile, the lowest mean score of 3.19 with a standard deviation of 0.81 was observed in the statements, "Training is provided on how to use new systems or tools" and "The systems used are reliable and rarely have problems." These were described as Agree and interpreted as Adequate Implementation. Although the results remain positive, the lower mean values suggest that respondents perceived these areas less favorably compared to other indicators. The slightly higher standard deviation indicates greater variation in respondents' opinions. The findings of the research are further supported by Tarhini et al. (2017), who noted that system quality and training have a significant effect on user acceptance and technology adoption in educational institutions. According to the study, users are more likely to successfully adopt and use technological systems when they receive sufficient training and when those systems exhibit dependability and usability.

ISSN: 3139-8464 (p)

Table 1

The Level of Operational Factors as regards to Technology Adoption.			
Statements	Mean	Standard Deviation	Description
The institution uses up-to-date technology in its daily operations.	3.40	0.74	Agree
Technology is used in both office work and academic activities.	3.48	0.77	Strongly Agree
Digital tools help make tasks easier and faster.	3.64	0.72	Strongly Agree
The institution keeps up with new technology when needed.	3.29	0.73	Agree
Training is provided on how to use new systems or tools.	3.19	0.81	Agree
The systems used are reliable and rarely have problems.	3.19	0.77	Agree
Technology helps improve communication within the institution.	3.44	0.81	Strongly Agree
Systems and data are used to help in planning and decision-making.	3.46	0.72	Strongly Agree
Online platforms make services more convenient.	3.46	0.76	Strongly Agree
The institution regularly improves its technology.	3.42	0.80	Strongly Agree
Overall	3.40	0.76	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/Deficient Implementation, 1.76-2.50 Disagree/Limited Implementation, 2.51-3.25 Agree/Adequate Implementation, 3.26-4.00Strongly Agree/Excellent Implementation

Table 2 presents the overall mean of 3.44 with a standard deviation of 0.73, which is described as Strongly Agree and interpreted as Excellent Implementation. The result indicates that respondents generally have positive perceptions regarding the operational factors related to resource management in the institution. The findings suggest that the institution effectively manages and utilizes its resources to support operational activities. Furthermore, the standard deviation shows that respondents' responses are relatively consistent, indicating similar views regarding the institution's resource management practices.

Among all the survey statements, "Equipment and materials are used properly" obtained the highest mean score of 3.54 with a standard deviation of 0.69, which is described as Strongly Agree and interpreted as Excellent Implementation. This indicates that respondents strongly believe that the institution properly utilizes its equipment and materials in carrying out its operations. The relatively low standard deviation suggests that respondents have similar perceptions regarding the

proper use of institutional resources. The study by Aithal and Aithal (2016), which emphasized how efficient use of institutional resources greatly enhances operational efficiency and organizational effectiveness, supports the findings. According to the study, organizations are more likely to increase productivity and improve service quality if they effectively manage and make the most of their resources, equipment, and facilities. The researchers went on to say that effective resource management enables organizations to reduce waste and maximize available resources in order to successfully accomplish their goals.

The statement, "Resources are shared fairly among departments," obtained the lowest mean score of 3.33 with a standard deviation of 0.79, which is described as Agree and interpreted as Excellent Implementation. Although the result remains positive, it received a comparatively lower rating than the other indicators. The higher standard deviation suggests slight differences in the respondents' perceptions regarding the fairness of resource distribution among departments. Mhlanga and Moloi's (2020) study, which brought out the importance of fairness and strategic institutional resource allocation in enhancing organizational effectiveness and operational performance, corroborates the study's conclusions. According to the study, fair and transparent resource distribution fosters efficiency and teamwork while assisting institutions in meeting the diverse needs of various departments.

Table 2

The Level of Operational Factors as regards to Resource Management.			
Statements	Mean	Standard Deviation	Description
Resources are given based on what the institution needs most.	3.39	0.77	Agree
Budget planning supports daily operations.	3.38	0.73	Agree
Facilities are well-maintained and usable.	3.44	0.71	Strongly Agree
Equipment and materials are used properly.	3.54	0.69	Strongly Agree
The use of resources is regularly checked.	3.48	0.72	Strongly Agree
Resources are used in a way that supports smooth operations.	3.52	0.70	Strongly Agree
Purchasing processes are organized and clear.	3.42	0.73	Strongly Agree
Available resources are used as much as possible.	3.46	0.71	Strongly Agree
Resources are shared fairly among departments.	3.33	0.79	Agree
Planning is done to make sure resources last long-term.	3.47	0.72	Strongly Agree

ISSN: 3139-8464 (p)

The Level of Operational Factors as regards to Resource Management.			
Statements	Mean	Standard Deviation	Description
Overall	3.44	0.73	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/Deficient Implementation, 1.76-2.50 Disagree/Limited Implementation, 2.51-3.25 Agree/Adequate Implementation, 3.26-4.00Strongly Agree/Excellent Implementation

Table 3 shows the overall mean of 3.42 with a standard deviation of 0.75, which is described as Strongly Agree and interpreted as Excellent Implementation. This result indicates that respondents generally have positive perceptions regarding the institution's human resource practices. The findings suggest that the institution effectively carries out human resource activities such as recruitment, employee support, performance evaluation, and workplace management. The relatively close responses of the respondents, as indicated by the standard deviation, imply that there is a common perception among them regarding the effectiveness of the institution's human resource practices. Human resource practices are important in ensuring that employees are provided with the support, guidance, and opportunities needed to perform their roles effectively. The positive overall result suggests that the institution recognizes the importance of managing its workforce in achieving organizational goals and maintaining operational efficiency.

Among all survey statements, "The institution hires qualified employees" received the highest mean score of 3.57 with a standard deviation of 0.69, which is described as Strongly Agree and interpreted as Excellent Implementation. This indicates that respondents strongly believe that the institution prioritizes hiring competent individuals who possess the necessary qualifications and skills required for their assigned positions. The relatively low standard deviation suggests that respondents share similar perceptions regarding the institution's recruitment process. The result may indicate that the institution follows specific standards and qualifications during the hiring process to ensure that employees are capable of performing their responsibilities effectively. Recruiting qualified employees is an important aspect of human resource management because it helps improve productivity and supports the institution's ability to meet its objectives. In addition, Singh (2019) stated that hiring qualified employees significantly improves organizational productivity, service quality, and operational performance. Competent employees possess the necessary knowledge and skills to perform work responsibilities effectively, contributing to institutional success. This supports the present findings where respondents strongly agreed that the institution hires qualified employees.

The statement, "Salary and benefits match the work being done," obtained the lowest mean score of 3.18 with a standard deviation of 0.84, which is described as Agree and interpreted as Adequate Implementation. Although respondents still agreed with the statement, the lower mean score compared to the other indicators suggests that compensation and benefits may be an area requiring further attention. The higher standard deviation also indicates some variation in respondents' perceptions, suggesting that experiences and opinions regarding compensation may differ among

employees. Some respondents may perceive that their salaries and benefits appropriately correspond with their responsibilities, while others may feel that their compensation does not fully reflect their workload or job demands. According to Kim (2022), salary and benefits significantly affect employee motivation, job satisfaction, and work performance. Employees who perceive compensation as fair are more likely to remain productive and committed to their responsibilities. This supports the present study where salary and benefits received the lowest mean score among the indicators.

Table 3

The Level of Operational Factors as regards to Resource Management.			
Statements	Mean	Standard Deviation	Description
The institution hires qualified employees.	3.57	0.69	Strongly Agree
Training and development are regularly provided.	3.31	0.78	Agree
Employee performance is reviewed regularly.	3.46	0.74	Strongly Agree
Salary and benefits match the work being done.	3.18	0.84	Agree
Job roles and responsibilities are clearly explained.	3.52	0.69	Strongly Agree
Leaders support employee growth and development.	3.47	0.74	Strongly Agree
The workplace environment is positive and supportive.	3.54	0.71	Strongly Agree
Communication within the institution is clear.	3.40	0.76	Agree
Employee concerns are handled properly.	3.36	0.80	Agree
Policies are applied fairly and consistently.	3.43	0.75	Strongly Agree
Overall	3.42	0.75	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/Deficient Implementation, 1.76-2.50 Disagree/Limited Implementation, 2.51-3.25 Agree/Adequate Implementation, 3.26-4.00Strongly Agree/Excellent Implementation

Table 4 presents the summary of the respondents' assessment of the operational factors of the institution in terms of Technology Adoption, Resource Management, and Human Resource Practices. The overall mean of 3.42 with a standard deviation of 0.75 is interpreted as Strongly Agree and described as having Excellent Implementation. This result indicates that the respondents generally perceived that the institution effectively implements operational practices that support its daily functions and organizational objectives. The relatively low standard deviation suggests

that the responses were consistent among the respondents. Among the operational factors, Resource Management obtained the highest mean score of 3.44 with a standard deviation of 0.73, interpreted as Strongly Agree and described as Excellent Implementation.

This finding suggests that the institution effectively manages its resources through proper allocation, utilization, monitoring, and planning. The result implies that respondents recognized the institution's efforts in ensuring that resources are available and utilized efficiently to support operational activities. Effective resource management contributes to organizational sustainability and enhances the institution's ability to achieve its goals. Human Resource Practices ranked second with a mean score of 3.42 and a standard deviation of 0.75, interpreted as Strongly Agree and described as Excellent Implementation. This indicates that the institution demonstrates effective practices in hiring qualified personnel, providing training opportunities, evaluating employee performance, and maintaining a supportive work environment.

The finding shows that employees perceive human resource policies and practices as beneficial to their professional growth and organizational performance. Strong human resource practices are essential in fostering employee motivation, commitment, and productivity. Meanwhile, Technology Adoption obtained the lowest mean score of 3.40 with a standard deviation of 0.76, although it still falls within the Excellent Implementation category.

Table 4

Operational Factors Summary Table			
Operational Factors	Mean	Standard Deviation	Description
Resource Management	3.44	0.73	Strongly Agree
Human Resource Practices	3.42	0.75	Strongly Agree
Technology Adoption	3.40	0.76	Agree
Overall	3.42	0.75	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/Deficient Implementation, 1.76-2.50 Disagree/Limited Implementation, 2.51-3.25 Agree/Adequate Implementation, 3.26-4.00Strongly Agree/Excellent Implementation

Table 5 presents the overall mean of 3.48 with a standard deviation of 0.72, which is described as Strongly Agree and interpreted as Outstanding Productivity. The result indicates that respondents generally have positive perceptions regarding operational productivity in terms of resource utilization within the institution. The findings suggest that resources are effectively managed and utilized to support daily operations and institutional activities. The standard deviation also shows that the responses of the participants are relatively close to one another, indicating consistency in their perceptions regarding the institution's use of resources. Effective resource utilization is

important because it allows institutions to maximize available resources while minimizing unnecessary waste. The overall result suggests that the institution demonstrates efficient practices in handling and managing resources to improve productivity and support organizational performance.

Among all survey statements, "Proper use of resources helps improve overall performance" obtained the highest mean score of 3.59 with a standard deviation of 0.67, which is described as Strongly Agree and interpreted as Outstanding Productivity. This result indicates that respondents strongly recognize the importance of resource utilization in improving institutional performance. The relatively low standard deviation indicates consistency in the respondents' answers, suggesting that most respondents share the same view regarding the impact of resource utilization on productivity. The result highlights that efficient use of available resources contributes significantly to achieving better work outcomes and organizational effectiveness. Daft (2019) explained that proper use of organizational resources improves overall institutional performance by increasing efficiency and supporting the achievement of operational goals. Effective resource utilization allows organizations to improve productivity and service quality. This supports the findings where respondents strongly agreed that proper use of resources improves overall performance.

The statement, "Time is used wisely during work hours," obtained the lowest mean score of 3.38 with a standard deviation of 0.76, which is described as Agree and interpreted as Outstanding Productivity. Although the result still reflects a positive perception, it received a relatively lower rating compared to the other indicators. The standard deviation indicates some variation in responses, which may suggest that respondents have different experiences regarding time management practices within the institution. While many respondents believe that work hours are utilized effectively, some may perceive areas where time management could still be improved. According to Claessens et al. (2019), effective time management is essential in improving productivity and work efficiency. Poor time allocation may affect task completion and operational effectiveness within organizations. This supports the present findings where time utilization during work hours obtained the lowest mean score.

Table 5

The Level of Operational Productivity as regards to Resource Utilization.			
Statements	Mean	Standard Deviation	Description
Resources are used properly in daily work.	3.56	0.68	Strongly Agree
Facilities are used effectively for different activities.	3.50	0.70	Strongly Agree
Budget is used in a way that improves results.	3.44	0.73	Strongly Agree
Work processes help avoid wasting resources.	3.41	0.74	Strongly Agree

The Level of Operational Productivity as regards to Resource Utilization.			
Statements	Mean	Standard Deviation	Description
Equipment is used properly to complete tasks.	3.52	0.69	Strongly Agree
Different departments work together to use resources better.	3.46	0.73	Strongly Agree
Time is used wisely during work hours.	3.38	0.76	Agree
Resources are given based on priority needs.	3.47	0.72	Strongly Agree
The use of resources is regularly checked for effectiveness.	3.43	0.74	Strongly Agree
Proper use of resources helps improve overall performance.	3.59	0.67	Strongly Agree
Overall	3.48	0.72	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/ Poor Productivity, 1.76-2.50 Disagree/ Inadequate Productivity, 2.51-3.25 Agree/Satisfactory Productivity 3.26-4.00Strongly Agree/Outstanding Productivity

Table 6 presents an overall mean of 3.55 with a standard deviation of 0.69, which is described as Strongly Agree and interpreted as Outstanding Productivity. The findings indicate that respondents generally have highly positive perceptions regarding employee productivity within the institution. The result suggests that employees are able to perform their responsibilities effectively and contribute positively to organizational performance. The relatively low standard deviation also indicates that respondents have similar perceptions regarding employee productivity, showing consistency in their responses. Employee productivity plays an important role in organizational success because it directly influences the quality of work output, efficiency in completing tasks, and the achievement of institutional objectives. The overall result suggests that the institution maintains productive employees who are capable of meeting expectations and supporting the institution's operational performance.

Among all survey statements, “Teamwork helps in completing tasks” obtained the highest mean score of 3.62 with a standard deviation of 0.65, which is described as Strongly Agree and interpreted as Outstanding Productivity. This result indicates that respondents strongly recognize the importance of teamwork in improving employee productivity and completing work responsibilities effectively. The relatively low standard deviation indicates consistency in responses, suggesting that respondents have similar perceptions regarding the positive impact of teamwork within the institution. Effective teamwork allows employees to share ideas, divide responsibilities, and work together toward common goals, which can improve work performance and productivity. Robbins and Judge (2019) emphasized that teamwork improves employee productivity, communication, and task completion. Employees who collaborate effectively are

more capable of achieving organizational goals and maintaining operational efficiency. This supports the findings where teamwork obtained the highest mean score.

The statement, "Productivity is maintained at a consistent level," obtained the lowest mean score of 3.46 with a standard deviation of 0.73, which is still described as Strongly Agree and interpreted as Outstanding Productivity. Although the result remains highly positive, it received the lowest score among the indicators presented. The standard deviation suggests slight variations in respondents' perceptions, which may indicate that some respondents experience differences in maintaining productivity levels over time. Factors such as workload, changing responsibilities, and work-related challenges may influence consistency in productivity. According to Muda et al. (2018), maintaining consistent productivity may become challenging due to workload demands, changing responsibilities, and workplace conditions. Continuous support and professional development are important in sustaining employee performance over time. This supports the findings where maintaining productivity at a consistent level obtained the lowest mean score.

Table 6

The Level of Operational Productivity as regards to Employee Productivity.			
Statements	Mean	Standard Deviation	Description
Tasks are completed on time.	3.55	0.69	Strongly Agree
Work output meets expected quality.	3.57	0.67	Strongly Agree
Work contributes to the institution's goals.	3.60	0.66	Strongly Agree
Tasks are done efficiently.	3.53	0.69	Strongly Agree
Initiative is shown in completing work.	3.50	0.71	Strongly Agree
Productivity is maintained at a consistent level.	3.46	0.73	Strongly Agree
Employees adjust well to changes in work.	3.48	0.72	Strongly Agree
Teamwork helps in completing tasks.	3.62	0.65	Strongly Agree
Work performance contributes to institutional success.	3.58	0.67	Strongly Agree
Efforts are made to improve performance over time.	3.59	0.66	Strongly Agree
Overall	3.55	0.69	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/ Poor Productivity, 1.76-2.50 Disagree/ Inadequate Productivity, 2.51-3.25 Agree/Satisfactory Productivity 3.26-4.00Strongly Agree/Outstanding Productivity

Table 7 presents the summary of respondents' assessment of operational productivity among private higher education institutions in Valencia City, Bukidnon. The overall mean score of 3.52 and standard deviation of 0.71 indicate that respondents strongly agree that their institutions exhibit a high level of operational productivity, which is interpreted as Outstanding Productivity. This suggests that the institutions are effective in maximizing available resources and maintaining employee efficiency to achieve organizational objectives.

Among the indicators, Employee Productivity obtained the highest mean score (M = 3.55, SD = 0.69), indicating that employees consistently perform their responsibilities efficiently, demonstrate commitment to their work, and contribute positively to institutional performance. The low variability in responses further suggests a strong consensus among respondents regarding the productive performance of employees.

Meanwhile, Resource Utilization recorded a mean score of 3.48 (SD = 0.72), which is likewise interpreted as Outstanding Productivity. This finding implies that institutional resources, including facilities, equipment, finances, and other operational assets, are effectively managed and utilized to support organizational functions. Respondents perceive that resources are allocated appropriately and are used in a manner that promotes efficiency and productivity.

The findings reveal that private higher education institutions have successfully maintained productive operations through effective resource management and a highly performing workforce. The consistently high ratings across both indicators suggest that these institutions have established operational practices that support efficiency, effectiveness, and the achievement of institutional goals. Such outcomes may contribute to improved service delivery, enhanced organizational performance, and sustained institutional competitiveness.

Table 7

Operational Productivity Summary Table			
Operational Productivity	Mean	Standard Deviation	Description
Resource Utilization	3.48	0.72	Strongly Agree
Employee Productivity	3.55	0.69	Strongly Agree
Overall	3.52	0.71	Strongly Agree

Legend: 1.00-1.75 Strongly Disagree/ Poor Productivity, 1.76-2.50 Disagree/ Inadequate Productivity, 2.51-3.25 Agree/Satisfactory Productivity 3.26-4.00Strongly Agree/Outstanding Productivity

Table 8 presents the correlation between operational factors and operational productivity in terms of resource utilization and employee productivity. The results show that all computed p-values are greater than the 0.05 level of significance, indicating that there is no significant relationship

between the variables. Technology adoption showed weak positive relationships with both resource utilization (r = .186, p = .612) and employee productivity (r = .241, p = .502). Resource management also showed positive relationships with resource utilization (r = .408, p = .241) and employee productivity (r = .376, p = .285), but these were not significant. Human resource practices obtained r = .298 (p = .404) for resource utilization and r = .628 (p = .052) for employee productivity, which also remained not significant. The findings imply that operational factors such as technology adoption, resource management, and human resource practices do not have a significant relationship with operational productivity in terms of resource utilization and employee productivity. Although positive relationships were observed, they were not statistically significant. Therefore, the results suggest that operational productivity may be influenced by other factors not included in the study. The study of Al-Omari and Okasheh (2017), which highlighted that employee productivity and organizational performance are influenced by multiple interacting factors rather than a single operational component, supports the current study's findings. Workplace conditions, organizational environment, management support, and employee-related factors may all have an impact on productivity outcomes, according to the researchers.

Table 8

Variables	Resource Utilization		Int	Employee Productivity		Int
	r-value	p-value		r-value	p-value	
Technology Adoption	.186	.612	NS	.241	.502	NS
Resource Management	.408	.241	NS	.376	.285	NS
Human Resource Practices	.298	.404	NS	.628	.052	NS

Correlation is significant at the 0.05 level (two tailed).
NS = Not Significant

Table 9 presents the relationship between operational factors and operational productivity. The computed r-value of .214 indicates a weak positive relationship between the variables. However, the p-value of .553 is greater than the 0.05 level of significance, indicating that the relationship is not statistically significant. Therefore, the null hypothesis (Ho) was accepted. This means that operational factors do not show a significant relationship with operational productivity among the respondents.

The findings imply that operational factors may not significantly influence operational productivity in the institution. Although a positive relationship was observed, it was not strong enough to establish statistical significance. This suggests that other factors not included in the study may also affect operational productivity.

The findings of the study are supported by the study of Pawirosumarto et al. (2017), which stated that organizational productivity and employee performance are influenced by various interrelated factors, including leadership, work environment, motivation, and organizational support systems. The researchers emphasized that although operational practices may contribute to productivity, the

presence of multiple influencing variables may reduce the direct impact of a single factor on organizational outcomes. The study further explained that productivity is a multidimensional concept that cannot be solely explained by operational indicators. This supports the findings of the present study wherein operational factors demonstrated a weak positive relationship with operational productivity but did not show a statistically significant association.

Table 9

Variables		r-value	p-value	Decision on Ho	Interpretation
Operational Factors	Operational Productivity	.214	.553	Accept Ho	Not Significant

Correlation is significant at the 0.05 level (two tailed).
NS = Not Significant

V. CONCLUSION

Based on the findings of the study, it is concluded that private higher education institutions demonstrate effective implementation of operational factors and maintain satisfactory levels of operational productivity. The institution appears to effectively utilize technology, manage resources, and implement human resource practices that support its daily functions and activities. Despite the positive perceptions regarding these operational factors, the statistical analysis showed that they do not significantly influence operational productivity when examined independently.

The study concludes that private higher education institutions in Valencia City, Bukidnon demonstrate a high level of operational productivity in terms of resource utilization and employee productivity. Respondents perceived that institutional resources are effectively allocated, monitored, and utilized to support daily operations, while employees consistently perform their duties efficiently and contribute to the achievement of organizational goals. The overall ratings of Outstanding Productivity indicate that the institutions have established effective practices that promote efficient resource use and high employee performance.

The study concludes that there is no significant relationship between operational factors and operational productivity among private higher education institutions in Valencia City, Bukidnon. Although technology adoption, resource management, and human resource practices were positively perceived and showed weak positive correlations with resource utilization and employee productivity, the relationships were not statistically significant. Therefore, the null hypothesis was accepted. This suggests that operational productivity may be influenced by other organizational and environmental factors not included in the study, such as leadership, work environment, employee motivation, and institutional support systems.

REFERENCES

[1] Aboramadan, M., Albashiti, B., Alharazin, H., & Zaidoune, S. (2020). Human resources management practices and organizational commitment in higher education. International

Journal of Educational Management, 34(1), 154–174. https://doi.org/10.1108/IJEM-04-2019-0160

[2] Acido, J. V. (2022). Financial, human, and physical resource management in Surigao State College. https://eric.ed.gov/?id=ED625774

[3] Acido, J. V. (2022). Resource management practices of a public higher education institution. https://eric.ed.gov/?id=ED625774

[4] Acodile-Viado, M., & Namoco, R. (2020). Efficiency analysis of selected state universities and colleges in Southern Philippines. https://doi.org/10.7719/irj.v12i1.814

[5] Agasisti, T. (2016). Cost structure, productivity and efficiency of the Italian public higher education industry. International Review of Applied Economics, 30(1), 48–68. https://doi.org/10.1080/02692171.2015.1122749

[6] Agasisti, T. (2016). Productivity and efficiency of Italian public higher education. https://doi.org/10.1080/02692171.2015.1122749

[7] Ahmad, N., & Khurizan, M. (2024). Data envelopment analysis and higher education: A systematic review. https://doi.org/10.1108/IJEM-2024-0142

[8] Ahmed, S., et al. (2025). HRM practices, human capital, absorptive capacity and innovative performance. https://doi.org/10.1108/JMD-2025-0211

[9] Aithal, P. S., & Aithal, S. (2016). Student-centric curriculum design and implementation–Challenges and opportunities in business management and IT education. International Journal of Applied and Advanced Scientific Research, 1(1), 75–89. https://doi.org/10.5281/zenodo.161107

[10] Al Sabbagh, M. (2024). Digital transformation and employee mindsets in higher education. https://www.icres.net/proceedings

[11] Alajlani, S. (2022). HR practices and employee retention in private higher educational institutions. SA Journal of Human Resource Management. https://doi.org/10.4102/sajhrm.v20i0.1901

[12] Allui, A., & Sahni, J. (2016). Strategic human resource management in higher education institutions. Procedia - Social and Behavioral Sciences, 235, 361–371. https://doi.org/10.1016/j.sbspro.2016.11.044

[13] Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the e-learning system usage during COVID-19 pandemic. Education and Information Technologies, 25(6), 5261–5280. https://doi.org/10.1007/s10639-020-10219-y

[14] Al-Omari, K., & Okasheh, H. (2017). The influence of work environment on job performance: A case study of engineering company in Jordan. International Journal of Applied Engineering Research, 12(24), 15544–15550. https://www.ripublication.com/ijaer17/ijaerv12n24_223.pdf

[15] Anthony, B., Kamaludin, A., Romli, A. et al. (2022). Blended Learning Adoption and Implementation in Higher Education: A Theoretical and Systematic Review. Tech Know Learn 27, 531–578. https://doi.org/10.1007/s10758-020-09477-z

[16] Asian Productivity Organization. (2017). Measuring productivity in higher education. https://www.apo-tokyo.org/publications

[17] Asian Productivity Organization. (2017). Productivity in higher education. https://www.apo-tokyo.org/publications

[18] Asian Productivity Organization. (2017). Raising productivity in higher education. https://www.apo-tokyo.org/publications

[19] Bacsarpa, J. (2023). Digital technology implementation and adoption of private higher education institutions (HEIs) in Region XII, Philippines. Psychology and Education: A Multidisciplinary Journal, 8(3), 304–316. https://doi.org/10.5281/zenodo.7854172

[20] Bentayao, G. J. (2025). Data-Driven Decision-Making (DDDM) Systems Practices in Private Higher Education Institutions: A Systematic Literature Review. International Journal of Research in Interdisciplinary Studies, 3(5), 241-246.

[21] Camilleri, M. A. (2020). Using the balanced scorecard as a performance management tool in higher education. https://doi.org/10.1177/0892020620927412

[22] Campos, A. F. (2019). Assessment of the human resource management practices of a private higher education institution in Iloilo City. https://cpu.edu.ph/research-journal

[23] Claessens, B. J. C., van Eerde, W., Rutte, C. G., & Roe, R. A. (2019). A review of the time management literature. Personnel Review, 48(2), 255–276. https://doi.org/10.1108/PR-04-2017-0104

[24] Condez, M. C. B. (2024). Technical efficiency of state universities and colleges in the Philippines. Davao Research Journal.https://doi.org/10.59120/drj.v15i1.124

[25] Daft, R. L. (2019). Organization theory and design (13th ed.). Cengage Learning. https://www.cengage.com/

[26] Das, S. (2025). Human resource management in higher education. https://doi.org/10.4018/978-1-6684-9999-9

[27] Dawo, D. P. G. K. M. W. T. (2025). Innovative HRM practices and organizational performance in private higher education institutions. https://doi.org/10.70382/ajss.v7i2.019

[28] Dawo, D. P. G. K. M. W. T. (2025). Innovative human resource management practices at selected private higher education institutions in Ethiopia. https://doi.org/10.70382/ajss.v7i2.019

[29] De Vera, F. S., & Echalar, L. V. (2025). Human resource practices and employees' performance in selected private higher education institutions in General Santos City. https://journalofbusiness.org

[30] Eze, S. C., Chinedu-Eze, V. C., Bello, A. O., Inegbedion, H., & Nwanji, T. I. (2020). Factors influencing the use of e-learning facilities by students in a private higher education institution in a developing economy. Humanities and Social Sciences Communications, 7(133). https://doi.org/10.1057/s41599-020-00624-6

[31] Feng J, Yu B, Tan WH, Dai Z, Li Z (2025) Key factors influencing educational technology adoption in higher education: A systematic review. PLOS Digit Health 4(4): e0000764. https://doi.org/10.1371/journal. pdig.0000764

[32] Haeruddin, M. (2023). Green human resource management and quality of working life in public universities. https://doi.org/10.52547/johepal.2023.1.1.45

[33] He, X. (2025). A model of human resource management practices affecting teaching staff's job performance. https://repository.siam.edu

[34] Kayanja, W. (2025). Digital transformation and organizational performance in higher education. Cogent Education. https://doi.org/10.1080/2331186X.2025.2478904

[35] Kim, M. (2022). Employee engagement and organizational performance: A review of current research. Sustainability, 14(2), 1–15. https://doi.org/10.3390/su14020847

[36] Kuleto, V., Ilić, M., Dumangiu, M., Ranković, M., Martins, O. M. D., Păun, D., & Mihoreanu, L. (2021). Exploring Opportunities and Challenges of Artificial Intelligence and Machine Learning in Higher Education Institutions. Sustainability, 13(18), 10424. https://doi.org/10.3390/su131810424

[37] Kupriyanova, V., Estermann, T., & Sabic, N. (2018). Efficiency of universities: Drivers, enablers and limitations. In A. Curaj, L. Deca, & R. Pricopie (Eds.), European Higher Education Area: The impact of past and future policies (pp. 603–618). Springer. https://doi.org/10.1007/978-3-319-77407-7_36

[38] Lacsina, B. (2026). Measuring human resource management service quality in higher education. https://journalofinterdisciplinaryperspectives.com

[39] Li, P. (2026). Exploring talent management on employee performance in Chinese higher education institutions. Frontiers in Education. https://www.frontiersin.org

[40] Li, P. (2026). Talent management and employee performance in Chinese higher education institutions. Frontiers in Education. https://www.frontiersin.org

[41] Liao, H., et al. (2024). Educational resource utilization efficiency and dynamic productivity change. PLOS ONE. https://doi.org/10.1371/journal.pone.0299940

[42] Liao, H., et al. (2024). Evaluation of educational resource utilization efficiency and dynamic productivity change. PLOS ONE. https://doi.org/10.1371/journal.pone.0299940

[43] Limani, Y., Hajrizi, E., Stapleton, L., & Retkoceri, M. (2019). Digital transformation readiness in higher education institutions (HEI): The case of Kosovo. IFAC-PapersOnLine, 52(25), 52–57. https://doi.org/10.1016/j.ifacol.2019.12.445

[44] Lucero, H. R., Victoriano, J. M., Carpio, J. T., & Fernando, P. G., Jr. (2021). Assessment of e-learning readiness of faculty members and students in the government and private higher education institutions in the Philippines. International Journal of Computing Sciences Research, 5, 398–406. https://doi.org/10.25147/ijcsr.2017.001.1.48

[45] Menezes, I. G. (2018). Influence of work environment on employee productivity. https://www.iosrjournals.org

[46] Mhlanga, D., & Moloi, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa? Education Sciences, 10(7), 180. https://doi.org/10.3390/educsci10070180

[47] Muda, I., Rafiki, A., & Harahap, M. R. (2018). Factors influencing employees' performance. International Journal of Business and Management, 13(10), 1–12. https://doi.org/10.5539/ijbm.v13n10p99

[48] Narkunienė, J., & Ulbinaitė, A. (2018). Comparative analysis of company performance evaluation methods. Entrepreneurship and Sustainability Issues, 6(1), 125–138. https://doi.org/10.9770/jesi.2018.6.1(10)

[49] Nguyen, T., et al. (2021). Digital transformation in educational institutions: The role of system quality and reliability. Sustainability, 13(14), 7895. https://doi.org/10.3390/su13147895

[50] Paais, M., & Pattiruhu, J. R. (2020). Effect of motivation, leadership, and organizational culture on satisfaction and employee performance. Journal of Asian Finance, Economics and Business, 7(8), 577–588. https://doi.org/10.13106/jafeb.2020.vol7.no8.577

[51] Panicker, V. S. (2020). Embedding culture and grit in the technology acceptance model (TAM) for higher education. arXiv. https://doi.org/10.48550/arXiv.2005.11973

[52] Perez, M. D. L. (2023). Management practices and employee performance of selected private higher education institutions in Calamba City, Laguna. https://doi.org/10.26480/svs.01.2023.13.24

[53] Qasem et al., (2019). Cloud Computing Adoption in Higher Education Institutions: A Systematic Review. DOI:10.1109/ACCESS.2019.2916234 https://www.researchgate.net/publication/333008997_Cloud_Computing_Adoption_in_Higher_Education_Institutions_A_Systematic_Review

[54] Qian Liu, Susan Geertshuis, Rebecca Grainger (2020). Understanding academics' adoption of learning technologies: A systematic review, Computers & Education, Volume 151, 2020,103857, ISSN 0360-1315, https://doi.org/10.1016/j.compedu.2020.103857. (https://www.sciencedirect.com/science/article/pii/S0360131520300579)

[55] Robbins, S. P., & Judge, T. A. (2019). Organizational behavior (18th ed.). Pearson. https://www.pearson.com/

[56] Rojniruttikul, N. (2025). HRM factors and sustainable development in higher education institutions. https://buscompress.com/journal-home.html

[57] Rojniruttikul, N. (2025). Human resource management strategies for sustainable development in higher education institutions. https://buscompress.com/journal-home.html

[58] Salleh, M. R., & Abas, M. K. (2025). Work-life balance practices and employee productivity in higher education institutions. Journal of Educational Administration. https://doi.org/10.1108/JEA-2025-0114

[59] See, K. F. (2026). Higher education efficiency and productivity studies. Humanities and Social Sciences Communications. https://www.nature.com/articles

[60] See, K. F. (2026). Survey of efficiency and productivity in higher education. https://www.nature.com/articles

[61] Shin, Y., & Jung, J. (2023). Work-life balance and employee well-being in organizational contexts. https://doi.org/10.1002/job.2675

[62] Singh, D. (2019). A literature review on employee retention with focus on recent trends. International Journal of Scientific Research in Science and Technology, 6(1), 425–431. https://doi.org/10.32628/IJSRST196162

[63] Tarhini, A., Masa'deh, R., Al-Busaidi, K. A., Mohammed, A. B., & Maqableh, M. (2017). Factors influencing students' adoption of e-learning: A structural equation modeling approach. Journal of International Education in Business, 10(2), 164–182. https://doi.org/10.1108/JIEB-09-2016-0032

[64] Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. Journal of the Association for Information Systems, 17(5), 328–376. https://doi.org/10.17705/1jais.00428

[65] Wildani, Z., et al. (2023). Data envelopment analysis for the efficiency of higher education departments. European Journal of Educational Research. https://doi.org/10.12973/eu-jer.12.4.1785

[66] Wildani, Z., et al. (2023). Efficiency of higher education departments at Sepuluh Nopember Institute of Technology. https://doi.org/10.12973/eu-jer.12.4.1785

[67] Zhang, G., et al. (2020). Higher education resource utilization using DEA. https://doi.org/10.1016/j.seps.2020.100824

[68] Zhang, G., et al. (2020). Performance evaluation and enrollment quota allocation of higher education resource utilization. Socio-Economic Planning Sciences. https://doi.org/10.1016/j.seps.2020.100824