

Innovative Supervision Practices In Higher Education: Assessing Digitalization, Sustainability, And Quality Management

Kier P. Dela Calzada

Kier.dcalzada@gmail.com

Zamboanga Peninsula Polytechnic State University.

Abstract

Middle managers act as a bridge between top-level administrators and frontline staff, ensuring effective communication and coordination between different levels of the organizational hierarchy. They translate higher management's vision and goals into actionable plans for implementation at the operational level. This research study aims to explore the innovative supervision practices of middle managers and their influence on the performances of higher education institutions. There were 321 faculties who participated in this study to rate their institution middle managers. Three HEIs from Zamboanga Peninsula were randomly selected as the study settings. Performance metric was based on the SUC levelling and number of accredited programs, which were collected from CHED database. The adoption of digital communication tools by middle managers has enhanced interactivity and communication flow within the organizations. Additionally, their focus on sustainability and resource allocation for continuous improvement has contributed to effective planning and a shared vision within the institutions. Middle managers in the three HEIs manifested competence in digitalization, sustainability, and quality management system as innovative supervision practices. This competence was correlated to their overall institution performance on SUC levelling and number of accredited programs. Nonetheless, the findings provide opportunities for HEIs to enhance their performance through the development of effective training programs and fostering a conducive administrative environment. This study contributes valuable insights to improve the overall performance of higher education institutions in the Zamboanga Peninsula.

Keywords: digitalization, higher education institutions, innovative supervision practices, quality management, sustainability

Introduction

Traditional, inventive, supporting, and active supervisors are the different types of supervisors. Traditional supervisors demand quantifiable results from their staff members in exchange for adhering to accepted conventions (Ashcroft et al., 2003). The characteristics of innovative supervisors include the development of forming tendencies and the cultivation of more favorable perceptions towards their subordinates. They are consistent in encouraging the members to embrace novel theories and methodologies to achieve quantifiable outcomes (Blomquist & Müller, 2006; Shastri et al., 2017).

The concept of a supportive manager revolves around an individual who actively seeks to aid and support to employees (Ashcroft et al., 2003). The role of a supportive manager entails the provision of praise and rewards to employees, with the aim of inspiring and motivating them to effectively carry out their job responsibilities (Odoardi et al., 2015). Active managers demonstrate behaviors that align with favorable perceptions of their subordinates and a high level of engagement in their own tasks (da Mota Pedrosa et al., 2013). Individuals exhibit a greater inclination towards engaging in practical actions rather than engaging in verbal discourse or seeking to inspire others.

The goal of this study was to assess the innovative supervision practices in higher education institutions (HEIs). This study analyzed how innovative supervision practices in HEIs influenced their performance in state university and college (SUC) leveling and program accreditation. The data collected provided insights on which aspects HEIs perform in terms of innovative supervision practices.

Supervision is a crucial aspect of educational practice that places equal emphasis on the development and well being of both students and teachers (Chavez, 2020). This is achieved through the establishment of a continuous and interactive relationship between the supervisor and the teacher, aimed at enhancing the overall quality of teaching and learning

processes (Comighud, 2019; Hoque et al., 2020). It is imperative that educational administrators prioritize and foster the growth of teachers through active support and encouragement, with a particular emphasis on enhancing instructional effectiveness (Tessfaw & Hoffman, 2012), motivating teachers to be creative (Male & Palaiologou, 2015), and giving feedbacks based on change management (Kalman & Arslan, 2016; Tubosun & Umar 2016; Pescuela, 2015).

According to Håkansson Lindqvist and Pettersson (2019), it has been observed that school managers perceive digitalization as a comprehensive and complex concept that involve various challenges at different levels of the school organization, such as technical, pedagogical, administrative, and organizational aspects. Recently, the role of the school managers or supervisors has undergone a notable transformation due to the advent of digitalization (Tanucan et al., 2022; Warman, 2022). This transformation has led to an increase in the complexity associated with this multidisciplinary task (De Grauwe, 2007). The provision of time, resources, and professional development plays a crucial role in supporting school managers in their efforts to facilitate leadership for digitalization, thereby enhancing the learning experiences of both teachers and students.

Supervision comprises a set of administrative activities that are specifically aimed at facilitating the effective attainment of organizational objectives. The primary objective of these entities is to optimize efficiency, thereby serving as valuable instruments for the facilitation of educational coordination.

The purpose of supervision is to facilitate enhancements in instructional practices, address challenges within the school environment, foster collaborative relationships between superiors and subordinates, promote professionalism and autonomy among staff members, and ultimately, foster the attainment of intrinsic motivation (Kotirde & Yunos, 2014). Additionally, supervision could also relate to content coverage, provision of resources, adherence to disciplinary measures, and maintenance of statutory records and accounts (Wahyu, 2020). It affords individuals the ability to gain access to the various challenges that the educational institution is currently facing, as well as the degree of accomplishment attained in the endeavor to fulfill the

objectives set forth by the school (Esia-Donkoh & Baffoe, 2018; Yunawati Sele et al., 2016).

Higher education institutions have consistently demonstrated a strong commitment to embracing novel and practical approaches aimed at enhancing the overall educational process and mitigating the negative consequences resulting from past oversights. The necessity for a comprehensive and outstanding education system that emphasizes the acquisition of knowledge, and the exploration of novel and cutting-edge technologies has become increasingly imperative.

The innovative supervision practices in terms of digitization, sustainability, and quality management system are also identified as the independent variables of the study which are hypothesized to have a significant influence on the dependent variable, identified as the institutional performances which are SUC levels and programs accreditation. In terms of digitization, the middle manager digitizes communication and instruction; provides user-friendly portal; uses automated assessment; applies natural language processing and promotes automation. The middle manager also implements processes and procedures; defines the system; establishes the processes and procedures; monitors performance and discusses the quality policy.

Research Questions

Below are the research questions sought to be answered in this study.

1. What are the innovative supervision practices of middle managers in terms of:
 - 2.1 digitization
 - 2.2 sustainability
 - 2.3 quality management system
2. What are the performances of higher institutions in terms of:
 - 2.4 SUC Leveling
 - 2.5 Program Accreditation
3. Is there a significant influence of the innovative supervision practices on the institutional performances?

Literature Review

Instructional supervision refers to the systematic process by which educators provide support and guidance to teachers to enhance and refine the teaching and learning experience (Maisyaroh et al., 2021). This process involves offering direction, stimulation, and various developmental activities aimed at fostering continuous improvement in the teaching and learning environment (Wanzare, 2012). Instructional supervision facilitates an optimal educational setting that promotes effective teaching practices and enhances student learning outcomes (Archibong, 2012). Several instances of this approach include self-evaluation, self-reflection, independent development, and similar approaches (Tyagi, 2010; Zepeda, 2013).

In the context of communication, it is possible to categorize techniques into two distinct types: direct and indirect (Agih, 2015; Moswela, 2010). The direct technique refers to a supervisory approach wherein teachers and supervisors engage in direct communication through various means such as teacher's meetings, workshops, and trainings. The indirect technique refers to a method employed in supervision activities, wherein various communication media are utilized (Wiyono, 2021). Examples of such media include supervision bulletins, job libraries, and other similar resources (Comighud, 2019; Maisyaroh et al., 2021).

Supervision within the context of a school system encompasses the systematic and diligent oversight of policies, concepts, principles, regulations, rules, and techniques that have been established to facilitate the successful implementation and attainment of educational objectives. The practice involves specialized knowledge and expertise to supervise, assess, and synchronize the progression of enhancing pedagogy and educational attainment within educational institutions (Kotirde & Yunos, 2014),

Using digital communication tools within an organizational setting has been found to significantly enhance interactivity among employees. Research indicates that these tools have a profound impact on the overall communication flow within the organization, yielding the most favorable outcomes (Dacholfany et al., 2021; Duderstadt et al., 2002). Digital communication tools, such as social media platforms, has been observed to facilitate interaction among individuals within an organizational structure. This interaction, in turn,

fosters a functional flow of communication across various levels of the hierarchy (Gustafsson et al., 2018). One study also noted that effective leadership could influence the development of digital system in education (e.g., Gruzina et al., 2019).

The examination of effective school managers and leaders predominantly centers around principals, although there has been an increasing inclination towards exploring shared or distributed leadership models (Hermosilla et al., 2014). The existing body of research on effective principals in developed nations investigates various practices, behaviors, and competencies that are linked to favorable outcomes in terms of teaching and learning (Day & Sammons, 2013; Robinson et al., 2007; Wahlstrom et al., 2010). In educational leadership, it is widely acknowledged that there exists an alignment of key practices that are associated with the effectiveness of principals.

When implemented in a coherent and goal-oriented manner, leadership practices have been found to yield positive outcomes. Examples of such practices include: fostering consensus among stakeholders regarding school goals that are centered around student learning; equipping teachers with the necessary knowledge and skills to facilitate effective instruction; establishing conducive work conditions and interactions that promote teaching and learning, and effectively managing the instructional program to align with the achievement of school goals (Hermosilla et al., 2014).

Furthermore, it is imperative to note that quality management plays a pivotal role in attaining a competitive advantage (Asiyai, 2022; Vinni, 2007). To achieve a continuous improvement in quality performance, it is imperative for a company's quality management system to undergo regular maintenance (Clara & Jayadi, 2022). This entails the self-motivation and ongoing development to enhance both internal and external quality services consistently (Arifin et al., 2022; Van de Water, 2000). While the auditing processes can be regarded as a component of the maintenance functions within a quality system, there is a dearth of comprehensive literature on the broader scope of maintenance activities in the context of quality management (Van de Water, 2000).

The standard of an educational system is a major factor in determining a society's overall quality of life (Marginson, 2002). Given the evident limitations surrounding educational

resources, it is imperative to underscore the importance of their effective utilization to achieve optimal outcomes. Administration is an indispensable component of any organization, as it facilitates the coordination and management of individuals within a hierarchical structure (Usman, 2016). This coordination involves the utilization of various tools, equipment, as well as human and material resources (Peretomode & Ikoya, 2019). The ultimate objective of administration is to effectively steer the organization towards the achievement of its established goals (Anthony-Stevens, 2020).

Methods

The present study employed a quantitative analysis in order to evaluate the influence of innovative supervision practices on the performance of HEIs. Quantitative analysis, as a methodological approach, involves the systematic collection and evaluation of quantifiable variables (Jensen & Warren, 2020). This analytical framework enables researchers to derive meaningful insights and make informed decisions based on the numerical data obtained.

Research Design

This study employed a descriptive-correlational research design to analyze the data obtained from the survey and accreditation database. The study followed a descriptive design to investigate the innovative supervision practices of middle managers within a higher education institution. Specifically, the study focuses on the areas of digitization, sustainability, and quality management system. The assessment also identified the educational institution's performance through looking at its accreditation status and the quantity of its accredited programs.

Descriptive studies aim to thoroughly and objectively represent a given population, situation, or phenomenon with accuracy and systematicity (Chavez & Lamorinas, 2023; McCombes, 2022). The correlational research design is employed to examine the associations between variables, wherein the researcher refrains from exerting control or manipulation over any of the variables under investigation (Bhandari, 2022).

Participants and Sampling Technique

For survey, the participants of the study were the faculty of selected HEIs in Zamboanga City. The following table, denoted as Table 1, provides an overview of the faculty population and the corresponding sample sizes from various institutions.

Table 1. Sample Distribution of Institutions

Higher Education Institutions	N	n
HEI-A	149	112
HEI-B	118	89
HEI-C	159	120
Total	426	321

This study used purposive sampling to sample the participants from each of the institution. In the present study, a sample size equivalent to 75% (seventy five percent) of the total population was selected for analysis and investigation. This was done to randomly select samples from the institution to limit sampling bias. Purposive sampling involves a collection of non-probability sampling techniques wherein the selection of samples is based on their possession of specific characteristics deemed essential for inclusion in the sample (Nikolopoulou, 2022).

Table 1 presents the sample distribution that indicates the number of samples collected from each HEIs. HEI-A had 112 total participants, HEI-B had 89 participants, and HEI-C had 120 participants. Total number of faculty who participated in this study was 321. The faculty was randomly selected using randomized name-pick technique.

Research Instrument

This study used survey questionnaire to represent the statements into quantifiable meanings. The feedback received from quantitative survey questions pertains to, is assessed by, or evaluates a "quantity" or a statistical measure, rather than the "quality" of the parameter (Bhat, 2023). This study used a 4-point Likert Scale to represent the responses of the participants. The questionnaire sought responses for innovative supervision practices using three different metrics, the digitization, sustainability, and quality management system. This instrument was scaled as 4-Highly Practiced, 3-Practiced, 2-Moderately Practiced and 1-Not Practiced.

Data Gathering Procedure

Initially, the researcher submitted a letter of permission to the office of the president seeking endorsement and scheduling for the administration and retrieval of research questionnaires. Once approval was obtained, the researcher explained the study's purpose and personally distributed the survey questionnaires to selected teachers in the institutions, based on the number of faculty per institution. These questionnaires gathered data on the management system practices in the institution. For those respondents who were not surveyed in person, the researcher provided a link to the survey instrument via Google Forms. The responses collected through the Google survey form were downloaded in an Excel format, and then the data were processed and treated using the Statistical Package for Social Sciences (SPSS).

Furthermore, to assess the performance of higher education institutions, the researcher collected data from the database of the Commission on Higher Education (CHED) regarding the SUC Leveling and Program Accreditation. The data were readily available upon request from CHED, ensuring access to relevant and reliable information for the study. By following this systematic and comprehensive data-gathering procedure, the researcher aimed to gather comprehensive and valid data to address the research objectives effectively.

Statistical Treatment

The data analysis process for this study involved quantitative analysis to examine the numerical characteristics of the data. The survey results were analyzed using descriptive statistics, specifically the weighted mean, to describe the innovative supervision practices among HEIs in terms of digitization, sustainability, and quality management system. Descriptive statistics allowed for a clear understanding of the quantified data without making inferences (Chaudhari, 2022). This analysis helped in presenting a comprehensive overview of the innovative supervision practices in HEIs.

To determine the potential influence of the management system practices on the performance of HEIs, the Pearson-moment correlation coefficient was used. This statistical measure provided insights into the strength and direction of the relationship between innovative supervision practices and the performance of HEIs (Pathak, 2020). Through this data analysis process, the study aimed to gain valuable

insights into the innovative supervision practices and their impact on the performance of HEIs, contributing to the broader body of knowledge in the field of higher education management and administration.

Results and Discussion

Problem 1. What are the innovative supervision practices of middle managers in terms of digitization, sustainability, and quality management system?

Table 2. The Innovative Supervision Practices of Middle Managers in terms of Digitization

Digitalization	\bar{x}	Description
The middle manager...		
1. digitizes communication and instruction.	3.76	Highly practiced
2. provides user-friendly portal.	3.58	Highly practiced
3. uses automated assessment.	3.53	Highly practiced
4. applies natural language processing.	3.48	Highly practiced
5. promotes automation.	3.55	Highly practiced
Overall Mean	3.53	Highly practiced

Legend: 3.26 -4.00- Highly practiced, 2.51 – 3.25 – Practiced, 1.76 – 2.50 – Moderately practiced, 1.00 – 1.75 – Not practiced

Table 2 shows the innovative supervision practices of middle managers in terms of digitization which can be seen that, the highest mean of 3.76 was in the middle manager digitizes communication and instruction and was described highly practiced. This means that, the middle managers use digital communication as devices to send information electronically. The emergence of digital communication has necessitated the establishment of novel guidelines for navigating social interactions in the realm of technology. Consequently, middle managers have been tasked with the responsibility of transforming information into a digital format (Kallenberg, 2007).

This study aligned to the assertions of Gustafsson et al. (2018) that digital communication tools within an organizational context could enhance interactivity among employees, thereby positively influencing the overall communication flow. The utilization of digital communication

tools, such as social media platforms, has been observed to play a significant role in facilitating interaction among individuals within an organizational structure. This, in turn, fosters a functional and efficient flow of communication across various levels of the hierarchy.

Furthermore, the middle manager applies natural language processing had the lowest mean of 3.48 described highly practiced. This means that, the middle managers use the natural language in communicating. However, this result did not align to the study conducted by Ariratana et al. (2015) who ascertain that communication was not popular among educational administrators. This current study, in contrast, indicated that middle managers in education were practicing effective communication, especially in communicating with other administrators and the faculty.

Significantly, this study manifested promising competence among middle managers in HEIs because of their efficacy in developing conducive communication pathways for digitalization. Okon et al. (2015) described a noteworthy correlation between the use of ICT for the purposes of record-keeping and communication, and the subsequent impact on the administrative performance of principals. Similarly, the middle managers in HEIs in Zamboanga Peninsula manifested competence in using technological resources of supervision practices e.g., digitalization of communication and instruction, use of natural language, and promoting automation.

Middle managers play a crucial role in fostering positive emotional experiences and cultivating a sense of self-assurance among both educators and students, thereby facilitating their capacity to embrace novel learning opportunities. The middle manager effectively employed digitization strategies to facilitate the conversion of communication and instruction into digital formats (Engelsberger et al., 2022). This included the implementation of a user-friendly portal, the utilization of automated assessment methods, the application of natural language processing techniques, and the promotion of automation within the organization.

Table 3. The Innovative Supervision Practices of Middle Managers in terms of Sustainability

Sustainability	\bar{x}	Description
----------------	-----------	-------------

The middle manager...		
1.	allocates sources for continuous improvement	3.27 Highly practiced
2.	creates opportunities for economic prosperity.	3.50 Highly practiced
3.	fosters environmental responsibility.	3.48 Highly practiced
4.	embraces design excellence.	3.54 Highly practiced
5.	demonstrates visionary leadership and strong governance.	3.57 Highly practiced
Overall Mean		3.47 Highly practiced

Legend: 3.26 -4.00- Highly practiced, 2.51 – 3.25 – Practiced, 1.76 – 2.50 – Moderately practiced, 1.00 – 1.75 – Not practiced

Table 3 shows the Innovative Supervision Practices of Middle Managers in terms of Sustainability which had the highest mean of 3.57 was on the middle manager demonstrates visionary leadership and strong governance and was described highly practiced. This study coincides with the assertion of Schraeder (2023) that middle managers help in developing faculties towards the realization of a shared vision, while concurrently establishing a framework within the organizational structure to effectively guide their efforts. To initiate the implementation sustainable trajectory, effective communication of the envisioned path to the teaching staff becomes imperative. This facilitates the initiation of concrete plans and subsequent actions.

On the other hand, the middle manager allocates sources for continuous improvement had the lowest mean of 3.27 described highly practiced. This means that the middle manager sees to it that the institution continuously practices instructional-improvement process that unfolds progressively sustained the instruction and curriculum.

The implementation of innovative supervision practices for Teaching and Learning (Chavez, 2023), which encompass responsive instruction, student ownership of learning, engagement, real-life settings, the growth of competencies, and effective application of digital technologies to facilitate connection, collaboration, creation, and sharing of learning experiences, was consistently upheld by the middle managers (Larsen et al., 1999; Mustafa et al., 2022). Middle manager implemented a strategy of sustainable innovative supervision to effectively allocate resources for ongoing

improvement, generate opportunities for economic prosperity, environmental responsibility, prioritize high-quality administrative design, and exhibit visionary leadership and powerful governance (Henderikx & Stoffers, 2022; Li & Xue, 2022).

The prevalence of electronic communication in organizational settings is on the rise, primarily attributed to its inherent flexibility and efficiency. From a sustainability perspective, it is worth noting that this approach holds value as it minimizes negative impacts on the environment and reduces paper consumption (Djordjevic & Cotton, 2011; Lozano, 2006). Middle managers manifested competence in innovative supervision practices for sustainability as they allocate sources for improvements, creates opportunities for economic prosperity, and embrace education design excellence.

Table 4. The Innovative Supervision Practices of Middle Managers in terms of Quality Management System

Quality Management System	\bar{x}	Description
The middle manager...		
1. implements processes and procedures.	3.41	Highly practiced
2. defines the system.	3.52	Highly practiced
3. establishes the processes and procedures.	3.48	Highly practiced
4. monitors performance.	3.30	Highly practiced
5. discusses the quality policy.	3.49	Highly practiced
Overall Mean	3.44	Highly practiced

Legend: 3.26 -4.00- Highly practiced, 2.51 – 3.25 – Practiced, 1.76 – 2.50 – Moderately Practiced, 1.00 – 1.75 – Not Practiced

Table 4 shows the innovative supervision practices of middle managers in terms of Quality Management System which can be seen that, the highest mean of 3.52 was in the middle manager defines the system and was described highly practiced. This indicates that the middle manager views the system as a resource to boost the trust and confidence while reducing fear and uncertainty among teachers and other stakeholders. This aligns to the results in the study of Boutcher et al. (2022) wherein middle managers could act as “knowledge brokers” who monitor the progress of a project and be an influencer for the members.

Moreover, the over-all mean of the responses of the teachers on the Innovative Supervision Practices of Middle Managers in terms of Quality Management System was 3.44 described highly practiced. Middle managers are responsible for various tasks such as gathering data, coordinating projects, disseminating information, and adapting implementation strategies to suit the organizational context (Engle et al., 2017; Urquhart et al., 2018). These roles and activities closely align with the responsibilities typically associated with a knowledge manager in the field of knowledge management (Uvhagen, 2018).

The middle managers put the Quality Management System into operation, which is created to assess each person's performance levels to boost school performance standards. This implies that the middle manager practices quality management system to implement processes and procedures, define the system, establish the processes and procedures, monitor performance and to discuss the quality policy.

The successful implementation of quality management principles has been identified to achieve improved communication across various industries (Hussain et al., 2023; Mbatha & Garad, 2022). Enhanced communication has the potential to foster increased trust among staff members and facilitate the exchange of information. This concerted effort aims to enhance the quality of service provided, ultimately leading to employees giving greater importance to the elimination of unfavorable practices and behaviors (Matalaka & Zoubi, 2023).

The overall response from teachers indicates that the Innovative Supervision Practices of Middle Managers in terms of Quality Management System are highly practiced and well-received. Middle managers take on various responsibilities, such as gathering data, coordinating projects, disseminating information, and adapting implementation strategies to suit the organizational context, which align with typical knowledge management roles. Its successful implementation can lead to improved communication across industries, fostering increased trust among staff members and facilitating the exchange of information.

Problem 2. What are the performances of higher education institutions in terms of SUC leveling and program accreditation?

Table 5. Summary Table on the Performances of Higher Institutions in terms of SUC Leveling and Program Accreditation

Institution	SUC Levelling	No of Accredited Program
HEI-A	Level II	15
	Level I	21
	Candidate Status	1
HEI-B	Level II	15
HEI-C	Level III	7

Level II	6
Level I	2
Candidate Status	2

This study designed the performance metric based on SUC Leveling and Program Accreditation collected from CHED database. The Table 5 summarizes HEIs performance based on these two metrics.

The table presents the accreditation status of programs offered by HEI-A. It is observed that a total of fifteen programs have been accredited at Level II, indicating a commendable level of quality and compliance with established standards. Additionally, twenty-one programs have attained Level I accreditation, signifying a satisfactory level of adherence to the prescribed criteria. Notably, one program has been granted a candidate status, suggesting that it is currently undergoing the accreditation process and is on track to meet the necessary requirements.

Furthermore, it is worth noting that a total of fifteen programs from HEI-B have successfully obtained Level II accreditation. Similarly, HEI-C has achieved notable success with seven programs being accredited at Level III, six programs at Level II, two programs at Level I, and an additional two programs being granted candidate status.

In a broad sense, HEIs that have obtained accreditation have often utilized this accreditation as a factor in their administrative decision-making processes, employing it in various ways (Ke et al., 2016). Accreditation serves as a mechanism through which HEIs ensure their adherence to established standards. Given the increasing proliferation of HEIs within the country and the corresponding demand for highly skilled workers in the global market, it becomes imperative to prioritize the continual improvement of educational quality (Conchada & Tiongco, 2015). The accreditation of programs and/or institutions is a voluntary process undertaken HEIs, although it is strongly recommended by the CHED (Padua, 2003).

For HEIs, various accrediting bodies operate to fulfill the crucial role of evaluating and certifying these institutions. The selection of an accrediting body is based on the qualities and attributes of the HEI. One of these accrediting bodies include the Philippine Accrediting Association of Schools,

Colleges and Universities (PAASCU). Accreditation, as stipulated by CHED, serves as a fundamental criterion for the conferral of university status upon private educational institutions. The consideration of various factors plays a significant role in the determination of Centers of Excellence and Centers of Development across different disciplines (PAASCU, 2021).

In this study, the three HEIs had well-established performance which adheres to the standards of CHED, the government agency for higher education in the Philippines. Considering the phenomenon of globalization and the increasing need for highly skilled individuals in various sectors, there exists a pressing necessity to enhance the overall standard of education (Hai, 2022). One viable approach to achieve this objective is by implementing a robust and reputable accreditation system.

Problem 3. Is there a significant influence of the innovative supervision practices on the institutional performances?

Table 6. Influence of the Innovative Supervision Practices on the Institutional Performances

Variables		r-value	p-value	Decision	Interpretation
Innovative Supervision Practices	Institutional Performances	0.784	0.005*	Reject	Moderate Correlation

*Significant level at $p=0.05$

Table 15 presents the results of the significant influence of the innovative supervision practices were correlated to the Institutional Performances (r -value = 0.161). The data described as moderate correlation with p -value < 0.05 which less than level of significance. Therefore, the hypothesis which stated, "There is no significant influence of the innovative supervision practices on the institutional performances." was rejected since, the variables tested in the study were statistically correlated. The direction of the magnitude correlation was positive linear relationship.

Furthermore, the innovative supervision practices along the above-mentioned dimensions can be good predicting variables to explain the institutional performances. The data imply that, when all the variables of the innovative supervision

practices were taken altogether, the influence did manifest on the institutional performances.

The innovative supervision practices such as digitization, sustainability and quality management system had moderate influence on the institutional performances such as three programs were awarded candidate status, twenty-three programs were accredited Level I, thirty-six programs were accredited Level II, and seven programs were accredited Level III by the Federation of Accrediting Agencies of the Philippines (FAAP).

The three selected HEIs in Zamboanga Peninsula passed the accreditation because they complied with all the standards stipulated by the accrediting body. The institutions possessed the requisite authority to introduce supplementary courses that were aligned with the existing level III courses, without necessitating prior approval. Additionally, they were granted the privilege to establish novel graduate programs. Furthermore, they were given with the privilege to provide open learning and distance education, as well as extension lessons and transnational learning (PACUCOA, 2020).

Previous studies had similar results based on the Problem 3 above. Harris et al. (2001) ascertained that it is important to encourage subject leaders to engage in a systematic and rigorous process of self-reflection regarding their practice. This development resulted in the adoption of enhanced and standardized evaluation and monitoring protocols within a specific academic division. In a separate instance, it resulted in the revision of the departmental plan and the subsequent execution of a lesson observation protocol within the department (Gjerde & Alvesson, 2020). In other studies, business administration has been found to exhibit a robust association with innovation, firm performance, the resource-based view, knowledge management, and dynamic capabilities (Ferlie & Ongaro, 2022).

When middle managers perform well in innovative supervision practices, it could influence their overall performance as an institution. The investigation revealed that teaching and learning, research, and industry collaboration emerged as shared factors in the accreditation and ranking processes conducted by both Indian and global accreditation and ranking bodies (Fernandes & Singh, 2022). Similarly, this study indicated that when HEIs promotes digitalization,

sustainability, and quality management system in their administration, it could influence their performance based on accreditation metrics.

The terms effectiveness, efficiency, excellencies, and perfection have often been employed interchangeably to denote the overall quality of educational institutions and programs (Darling-Hammond, 2020). The process of accreditation involves the evaluation of HEIs and their programs to determine if they adhere to established standards conducted through a rigorous third-party peer review process (Cheng, 2016). The fostering of program development, educational change, and innovation is regarded as a highly advantageous and productive endeavor (Jalal et al., 2020).

Conclusion

The innovative supervision practices of middle managers, particularly in the areas of digitization, sustainability, and quality management system, have a moderate influence on institutional performances in the higher education institutions (HEIs) in Zamboanga Peninsula. These practices, such as digitizing communication and instruction, fostering visionary leadership and strong governance, and implementing quality management systems, have been observed to positively impact the overall performance and accreditation status of the institutions.

Middle managers' adoption of digital communication tools has enhanced interactivity among employees, leading to a functional and efficient flow of communication within the organizational structure. Moreover, their focus on sustainability and resource allocation for continuous improvement has contributed to the development of a shared vision and effective planning within the institutions.

Middle managers play a crucial role in defining and putting the QMS into operation. They view the system as a resource to boost trust and confidence among teachers and stakeholders, reducing fear and uncertainty. Middle managers act as "knowledge brokers," monitoring project progress and influencing team members positively. The three selected HEIs in the Zamboanga Peninsula were able to pass accreditation by complying with the accrediting body's standards. As a result, they were granted various privileges, such as introducing supplementary courses, establishing graduate programs,

providing open learning and distance education, and offering extension lessons and transnational learning.

Future studies should focus on developing predictive models to discover more about the role of every metrics in improving accreditation and SUC leveling. This study was not able to provide in-depth analysis on how each metric contribute to the performance of HEIs. Nevertheless, this study opened opportunities for HEIs to improve their performance through development of effective trainings and fostering conducive administrative environment.

References

- Agih, A. A. (2015). Effective school management and supervision: Imperative for quality education service delivery. *African Research Review*, 9(3), 62-74.
- Anthony-Stevens, V., Mahfouz, J., & Bisbee, Y. (2020). Indigenous teacher education is nation building: Reflections of capacity building and capacity strengthening in Idaho. *Journal of School Leadership*, 30(6), 541-564.
- Archibong, F. I. (2012). Instructional supervision in the administration of secondary education: a panacea for quality assurance. *European scientific journal*, 8(13).
- Arifin, S., Darmawan, D., Hartanto, C. F. B., & Rahman, A. (2022). Human Resources based on Total Quality Management. *Journal of Social Science Studies (JOS3)*, 2(1), 17-20.
- Ariratana, W., Sirisookslip, S., & Ngang, T. K. (2015). Development of leadership soft skills among educational administrators. *Procedia-Social and Behavioral Sciences*, 186, 331-336.
- Ashcroft, J., Daniels, D., & Hart, S. (2003). How police supervisory styles influence patrol officer behavior. Office of Justice Programs, U.S. Department of Justice.
- Asiyai, R. I. (2022). Best practices for quality assurance in higher education: implications for educational administration. *International Journal of Leadership in Education*, 25(5), 843-854.
- Bhandari, P. (2022). Correlational Research | Guide, Design & Examples. Scribbr [Online]. <https://www.scribbr.co.uk/research-methods/correlational-research-design/> (accessed on 19 July 2023)
- Bhat, A. (2023). Quantitative Survey Questions: Definition, Types and Examples. QuestionPro [Online]. <https://www.questionpro.com/blog/quantitative-survey-questions/> (accessed 18 July 2023)

- Blomquist, T., & Müller, R. (2006). Practices, roles, and responsibilities of middle managers in program and portfolio management. *Project Management Journal*, 37(1), 52-66.
- Boutcher, F., Berta, W., Urquhart, R., & Gagliardi, A. R. (2022). The roles, activities and impacts of middle managers who function as knowledge brokers to improve care delivery and outcomes in healthcare organizations: a critical interpretive synthesis. *BMC health services research*, 22, 1-17.
- Chaudhari, S. (2022). What Is Descriptive Statistics?. Built In [Online]. <https://builtin.com/data-science/descriptive-statistics> (accessed 18 July 2023)
- Chavez, J., & Lamorinas, D. D. (2023). Reconfiguring assessment practices and strategies in online education during the pandemic. *International Journal of Assessment Tools in Education*, 10(1), 160-174.
- Chavez, J.V. (2023). Assessing Online Academic Integrity and Humanized Teaching in Zamboanga Peninsula Polytechnic State University. *Journal of Multidisciplinary in Social Sciences*. 19(1): 9-17.
- Chavez, J.V. (2020). Chavez, J.V. (2023). Assessing Online Academic Integrity and Humanized Teaching in Zamboanga Peninsula Polytechnic State University. *Journal of Multidisciplinary in Social Sciences*. 16(3): 74-81.
- Cheng, M. (2016). *Quality in higher education: Developing a virtue of professional practice*. Springer.
- Clara, C., & Jayadi, U. (2022). Analysis of Performance Quality of Administrative Employees at Center for The Development of Quality Assurance of Vocational Education in Building and Electricity Field. *International Journal of Social Science, Education, Communication and Economics (Sinomics Journal)*, 1(1), 25-32.
- Comighud, S. M. T. (2019). *Instructional Supervision and Educational Administration. Goal setting, monitoring and feedbacking practices as performance management mechanisms*.
- Comighud, S. M. T. (2019). *Instructional Supervision and Educational Administration. Goal setting, monitoring and feedbacking practices as performance management mechanisms*.
- Conchada, M. I. P., & Tiongco, M. M. (2015). A review of the accreditation system for Philippine higher education institutions. *Philippine Institute for Development Studies*.
- Corbett, M., & Gereluk, D. (Eds.). (2020). *Rural Teacher Education: Connecting Land and People*.
- da Mota Pedrosa, A., Välling, M., & Boyd, B. (2013). Knowledge related activities in open innovation: managers' characteristics and practices. *International Journal of Technology Management* 12, 61(3/4), 254-273.

- Dacholfany, M. I., Noor, T. R., Diana, E., & Prayoga, D. (2021). Identification of higher education administration applications efforts to improve digital-based academic services. *Linguistics and Culture Review*, 5(S2), 1402-1414.
- Darling-Hammond, L. (2020). Accountability in Teacher Education. *Action in Teacher Education*, 42(1), 60–71.
- Day, C., & Sammons, P. (2013). *Successful leadership: A review of the international literature*. CfBT Education Trust. 60 Queens Road, Reading, RG1 4BS, England.
- De Grauwe, A. (2007). Transforming school supervision into a tool for quality improvement. *International Review of Education/Internationale Zeitschrift für Erziehungswissenschaft/Revue Internationale de l'Education*, 53(5/6), 709-714.
- Djordjevic, A., & Cotton, D. R. E. (2011). Communicating the sustainability message in higher education institutions. *International Journal of Sustainability in Higher Education*, 12(4), 381-394.
- Duderstadt, J. J., Atkins, D. E., & Van Houweling, D. E. (2002). *Higher education in the digital age: Technology issues and strategies for American colleges and universities*. Greenwood Publishing Group.
- Engelsberger, A., Cavanagh, J., Bartram, T., & Halvorsen, B. (2022). Multicultural skills in open innovation: relational leadership enabling knowledge sourcing and sharing. *Personnel Review*, 51(3), 980-1002.
- Engle, R. L., Lopez, E. R., Gormley, K. E., Chan, J. A., Charns, M. P., & Lukas, C. V. (2017). What roles do middle managers play in implementation of innovative practices?. *Health care management review*, 42(1), 14.
- Esia-Donkoh, K., & Baffoe, S. (2018). Instructional Supervisory Practices of Headteachers and Teacher Motivation in Public Basic Schools in Anomabo Education Circuit. *Journal of education and E-Learning Research*, 5(1), 43-50.
- Ferlie, E., & Ongaro, E. (2022). *Strategic management in public services organizations: Concepts, schools and contemporary issues*. Routledge.
- Fernandes, J. O., & Singh, B. (2022). Accreditation and ranking of higher education institutions (HEIs): review, observations and recommendations for the Indian higher education system. *The TQM Journal*, 34(5), 1013-1038.
- Gjerde, S., & Alvesson, M. (2020). Sandwiched: Exploring role and identity of middle managers in the genuine middle. *Human relations*, 73(1), 124-151.

- Gruzina, Y. M., Mel'Nichuk M. V. & Bologash, M. V. (2019). Leadership ideas shaped by digital insights in higher education. *Управленческие науки*, (4), 75-84.
- Gustafsson, E., Stark Nässlin, R., & Åman, A. (2018). Digital internal communication: an investigation of digital communication tools used within three organizations and employees' attitudes towards these tools. International Business School: Jönköping, Sweden.
- Hai, N. C. (2022). Factors Affecting Student Satisfaction with Higher Education Service Quality in Vietnam. *European Journal of Educational Research*, 11(1), 339-351.
- Håkansson Lindqvist, M., & Pettersson, F. (2019). Digitalization and school leadership: on the complexity of leading for digitalization in school. *The international journal of information and learning technology*, 36(3), 218-230.
- Harris, A., Busher, H., & Wise, C. (2001). Effective training for subject leaders. *Journal of In-Service Education*, 27(1), 83-94.
- Henderikx, M., & Stoffers, J. (2022). An exploratory literature study into digital transformation and leadership: Toward future-proof middle managers. *Sustainability*, 14(2), 687.
- Hermsilla, M. F., Anderson, S., & Mundy, K. (2014). *Education Management and Leadership: A Rapid Review of the Literature*. Ontario Institute for Studies in Education, University of Toronto.
- Hoque, K. E., Bt Kenayathulla, H. B., D/O Subramaniam, M. V., & Islam, R. (2020). Relationships between supervision and teachers' performance and attitude in secondary schools in Malaysia. *Sage Open*, 10(2), 2158244020925501.
- Hussain, S., Alsmairat, M., Al-Maaitah, N., & Almrayat, S. (2023). Assessing quality performance through seven total quality management practices. *Uncertain Supply Chain Management*, 11(1), 41-52.
- Jalal, H., Buzdar, M. A., & Naoreen, B. (2020). Effectiveness of accreditation in assuring the quality of teacher education programs: exploring the case of an underdeveloped country. *Global Social Sciences Review*, 1, 84-94.
- Jensen, D. & Warren, K. (2020). *Quantitative Data Analysis 101*. GradCoach [Online]. <https://gradcoach.com/quantitative-data-analysis-methods/> (accessed on 19 July 2023)
- Kallenberg, T. (2007). Strategic innovation in HE: The roles of academic middle managers. *Tertiary Education and Management*, 13, 19-33.
- Kalman, M., & Arslan, M. C. (2016). School principals' evaluations of their instructional leadership behaviours: Realities vs. ideals. *School Leadership & Management*, 36(5), 508-530.
- Ke, S. W., Lin, W. C., & Tsai, C. F. (2016). Research performance of

- AACSB accredited institutions in Taiwan: before versus after accreditation. SpringerPlus, 5, 1-10.
- Kotirde, I. Y., & Yunos, J. B. M. (2014). The supervisors' role for improving the quality of teaching and learning in Nigeria secondary school educational system. *International Journal of Education and research*, 2(8), 53-60.
- Kotirde, I. Y., & Yunos, J. B. M. (2014). The supervisors' role for improving the quality of teaching and learning in Nigeria secondary school educational system. *International Journal of Education and research*, 2(8), 53-60.
- Larsen, T. J., & Wetherbe, J. C. (1999). An exploratory field study of differences in information technology use between more- and less-innovative middle managers. *Information & Management*, 36(2), 93-108.
- Li, J., & Xue, E. (2022). "Sustainable or unsustainable" in higher education internationalization development: Exploring the post-doctoral system in the humanities and social sciences. *Sustainability*, 14(17), 11024.
- Lozano, R. (2006). Incorporation and institutionalization of SD into universities: breaking through barriers to change. *Journal of cleaner production*, 14(9-11), 787-796.
- Maisyaroh, Budi Wiyono, B., Hardika, Valdez, A. V., Mangorsi, S. B., & Canapi, S. P. (2021). The implementation of instructional supervision in Indonesia and the Philippines, and its effect on the variation of teacher learning models and materials. *Cogent Education*, 8(1), 1962232.
- Male, T., & Palaiologou, I. (2017). Pedagogical leadership in action: Two case studies in English schools. *International Journal of Leadership in Education*, 20(6), 733-748.
- Marginson, S. (2002). Nation-building universities in a global environment: The case of Australia. *Higher Education*, 43, 409-428.
- Matalka, M., & Zoubi, M. (2023). The influence of soft and hard quality management practices on quality improvement and performance in UAE higher education. *International Journal of Data and Network Science*, 7(3), 1311-1320.
- Mbatha, W., & Garad, A. (2022). INVESTIGATING THE READINESS TO IMPLEMENT TOTAL QUALITY MANAGEMENT IN REMOTE HOSPITALS: A CASE STUDY FROM SAINT HELENA ISLAND. *International Journal for Quality Research*, 16(1).
- McCombes, S. (2022). Descriptive Research Design | Definition, Methods & Examples. Scribbr [Online]. <https://www.scribbr.co.uk/research-methods/descriptive-research-design/> (accessed on 19 July 2023)

- Moswela, B. (2010). Instructional supervision in Botswana secondary schools: An investigation. *Educational management administration & leadership*, 38(1), 71-87.
- Mustafa, M. J., Hughes, M., & Ramos, H. M. (2022). Middle-managers' innovative behavior: the roles of psychological empowerment and personal initiative. *The International Journal of Human Resource Management*, 1-27.
- Nikolopoulou, K. (2022). What Is Purposive Sampling? | Definition & Examples. Scribbr [Online]. <https://www.scribbr.co.uk/research-methods/purposive-sampling-method/> (accessed 18 July 2023)
- Odoardi, C., Montani, F., Boudrias, J. S., & Battistelli, A. (2015). Linking managerial practices and leadership style to innovative work behavior: The role of group and psychological processes. *Leadership & Organization Development Journal*, 36(5), 545-569.
- Okon, J. E., Ekaette, S. O., & Ameh, E. (2015). Information and Communication Technology (ICT) Utilization and Principals' Administrative Effectiveness in Public Secondary Schools in Akwa Ibom State, Nigeria. *African Educational Research Journal*, 3(2), 131-135.
- Padua, R. N. (2003). International higher education quality assurance practices: Situating the Philippine system. *Journal of Philippine Higher Education Quality Assurance*, 1(1), 8-15.
- Pathak, R. (2020). What is Pearson's Correlation Coefficient 'r' in Statistics?. Analytics Steps [Online]. <https://www.analyticssteps.com/blogs/pearsons-correlation-coefficient-r-in-statistics> (accessed 18 July 2023)
- Peretomode, V. F., & Ikoya, P. (2019). Mentorship: A Strategic Technique for Achieving Excellence, Manpower Development and Nation Building?. *Mediterranean journal of social sciences*, 10(2), 17.
- Pescuela, C. (2015). Extent of school administrators' implementation of instructional leadership and its relationship to their teachers' performance. Unpublished Thesis. Foundation University. Dumaguete City.
- Philippine Accrediting Association of Schools, Colleges and Universities. (2021). 2021 ACCREDITATION GUIDEBOOK. Quezon City: Office of the Philippine Accrediting Association of Schools, Colleges and Universities, 1-289.
- Philippine Association of Colleges and Universities Commission on Accreditation. (2020). PACUCOA Accreditation. PACUCOA, Inc. [Online]. <https://www.pacucoa.com/copy-of-about-accreditation> (accessed on 20 July 2023)
- Robinson, V. M., Hohepa, M., & Lloyd, C. (2007). School leadership and student outcomes: Identifying what works and why (Vol. 41,

- pp. 1-27). Winmalee: Australian Council for Educational Leaders.
- Schraeder, M. (2023). Guiding new Middle managers in developing effective communication practices. *Development and Learning in Organizations: An International Journal*, 37(4), 18-21.
- Shastri, Y., Hoda, R., & Amor, R. (2017). Understanding the roles of the manager in agile project management. In *Proceedings of the 10th Innovations in Software Engineering Conference* (pp. 45-55). Springer Singapore.
- Tanucan, J. C. M., Negrido, C. V., & Malaga, G. N. (2022). Digital leadership of school heads and job satisfaction of teachers in the Philippines during the pandemic. *International journal of learning, teaching and educational research*, 21(10), 1-18.
- Tesfaw, T. A., & Hofman, R. H. (2012). *Instructional Supervision and Its Relationship with Professional Development: Perception of Private and Government Secondary School Teachers in Addis Ababa*. Online Submission.
- Tubosun, B. V., & Umar, H. A. (2016). School administration and instructional supervision of secondary school chemistry for students' academic performance. *Issues in scientific research*.
- Tyagi, R. S. (2010). School-based instructional supervision and the effective professional development of teachers. *Compare*, 40(1), 111-125.
- Urquhart, R., Kendell, C., Folkes, A., Reiman, T., Grunfeld, E., & Porter, G. A. (2018). Making it happen: middle Managers' roles in innovation implementation in health care. *Worldviews on Evidence-Based Nursing*, 15(6), 414-423.
- Usman, Y. D. (2016). *Educational Resources: An Integral Component for Effective School Administration in Nigeria*. Online Submission, 6(13), 27-37.
- Uvhagen, H., Hasson, H., Hansson, J., & von Knorring, M. (2018). Leading top-down implementation processes: a qualitative study on the role of managers. *BMC Health Services Research*, 18, 1-9.
- Van de Water, H. (2000). A maintenance model for quality management. *International Journal of Quality & Reliability Management*, 17(7), 756-770.
- Vinni, R. (2007). Total quality management and paradigms of public administration. *International Public Management Review*, 8(1), 103-131.
- Wahlstrom, K. L., Louis, K. S., Leithwood, K., & Anderson, S. E. (2010). *Learning from Leadership: Investigating the Links to Improved Student Learning*. The Informed Educator Series. Educational Research Service.

- Wahyu, W. (2020). Concept of supervision of learning process in increasing the quality of education results in Madrasah. *International Journal of Nusantara Islam*, 8(1), 67-77.
- Wanzare, Z. (2012). Instructional supervision in public secondary schools in Kenya. *Educational Management Administration & Leadership*, 40(2), 188-216.
- Warman, W., Poernomo, S. A., Januar, S., & Amon, L. (2022). Leadership Style and Principal Supervision in Improving Teacher Performance at State High Schools in Kutai Kartanegara Regency, East Kalimantan Province, Indonesia. *EduLine: Journal of Education and Learning Innovation*, 2(1), 17-24.
- Wiyono, B. B., Wedi, A., Ulfa, S., & Putra, A. P. (2021). The use of information and communication technology (ICT) in the implementation of instructional supervision and its effect on teachers' instructional process quality. *Information*, 12(11), 475.
- Yunawati Sele, A., Corebima, D., & Indriwati, S. E. (2016). The analysis of the teaching habit effect based on conventional learning in empowering metacognitive skills and critical thinking skills of senior high school students in Malang, Indonesia. *International Journal of Academic Research and Development*, 1(5), 64-69.
- Zepeda, S. J. (2013). *Instructional supervision: Applying tools and concepts*. Routledge.