Factors Leading to the Acceptance of Management Information System in Public Schools: A Path Analysis

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Abstract:- The study aimed to determine the factors leading to the acceptance of management information systems in public schools. There were 300 Public school Teachers who participated in the study. They were selected using random sampling. The structural factors were management support, social influence, personal IT innovativeness, and convenience. The dependent variable was the acceptance of the management information system indicated by perceived usefulness and ease of use. The research employed a quantitative, non-experimental design and descriptive-path Analysis approach. The face-to-face data collection process was utilized using a standardized instrument. The statistical tools used were mean, Pearson's product-moment correlation, and path analysis. The findings of the study showed that the structural variables of Management Information System (MIS) such as management support, social influence, personal IT innovativeness, and convenience yielded very high-level results. Similarly, the acceptance of MIS in terms of perceived usefulness and ease of use yielded a very high level of acceptance. Furthermore, the perceived structural variables are significantly related to the use of MIS. Finally, the Path analysis revealed a significant relationship between various factors and the perceived ease of use and perceived usefulness of MIS.

Keywords:- *Management, Structural Factors, Management Information System, Public Schools, Path Analysis, Philippines.*

➢ *SDG Indicators:- #4 (Quality Education)*

I. INTRODUCTION

Information system refers to an organization's use of a combination of hardware, software, and communication networks to gather relevant data (Emitus, 2021). It has been suggested, however, that problems such as information system failure are a result of structural issues at all levels that either increase or decrease an individual's likelihood of experiencing violence, exploitation, or abuse (Geneva, 2021).

Cognizant of the importance of the studies on information systems, the researcher has investigated related structural factors that are suspected to influence organizational components for best performance. Development and Validation of an Instrument for Multidimensional Top Management Support (Ahmed & Mohamaed, 2017), Social Influence Scale for Technology Design and Transformation (Agnis & Cugelman, 2019), A Conceptual and Operational Definition of Personal Innovativeness in the Domain of Information Technology (Agarwal & Prasad, 1998), Validating Service Convenience Scale and Profiling Customers: A Study in the Indian Retail Context (Aagja, Mammen,Saraswat, 2011). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology (Davis, 1989). This set of structures provides an impact on how well a company executes its strategy and goals. (Daily, 2021).

In concurrence, (Sharma, 2019)postulated that when the information system was introduced, people began to accept change inside and this may be impacted by how they felt the new applications would impact their ability to do their jobs or performance. In–academic institutions, for example, the freedom of individuals is highly valued. The aforementioned concept is supported by (Aubert, Barki, Patry and Roy, 2018)wherein argue that benefits from information systems are not valued if organizations experience low utilization by the intended users.

For instance, (Kim and Kankanhali, 2019), suggested that when introducing new technologies, the acceptance of change starts within the individuals and this could be influenced by the way they perceive the new applications and their effect on their job performance. This concept was also supported by (Hidayanto and Ekawati, 2020) who revealed that the success of implementation would depend on user acceptance and use of the technology in an organization which is also related to the concept (Heeks, 2019)which revealed that information systems play an essential role in organizations with its power to change how the business operates (Heeks, 2019). Since the power and efficiency of information systems are constantly evolving (Atler, 2021), companies need to adjust and incorporate up-to-date technology into their workplace. Hence, organizations shall operate at the highest levels of efficiency that cause them to implement new, updated Information systems into their business. Since most of the existing studies are focused on the perceived level of usefulness; and perceived ease of use (Ventakesh & Davis, 2000), the researcher attempts to investigate other related domains such as Personal IT innovativeness and convenience. These predetermined factors are comprehensively discussed by (Lu, Yao & Chun-Sheng Yu, 2005) who described and

analyzed the significant influence of structural factors on the acceptance of faculty members' influence on the effective and efficient use of information systems.

Information System for Education Management (EMIS) is a DepEd curriculum in compliance with MEC Memo No. 83, sec. 1981 that offers details about administrators of education in the organizing and provision of instructional services. It is information. gathering, analyzing, sharing, and applying for organizing, carrying out, overseeing, and assessment of how the school is run. The methodical and current data provides guidance on what should be accomplished by the school and the methods used to do so while depending on the information at hand (Cuartero and Role, 2018).

According to prior conversations related to the ongoing study, a considerable number of teachers in the Department of Education have been exposed to management information systems (MIS) and are currently implementing these technologies in their schools. However, it is concerning that these teachers have not undergone formal seminar or training sessions on how to use MIS in educational contexts. As a result, individuals rely primarily on personal experiences with their devices, resulting to a self-taught approach. Furthermore, other teachers demonstrate a clear lack of embrace of technology while they work to improve their skills in using these technologies. Many of them have expressed little interest in enhancing their MIS skills. Furthermore, despite the availability of alternate record-keeping tools and methods, such as internet storage devices like I-cloud, Google Drive, and Dropbox, teachers' competency levels in using these applications are unknown. Furthermore, intermittent internet availability in the surrounding area exacerbates these difficulties. Given these issues, there is an urgent need for research to fully understand the reasons behind these challenges and other factors influencing the acceptability of management information systems in Governor Generoso's area.

To improve the level of education and lifelong learning in the Philippines, part of the government's agenda is the governance and management of higher education. According to the Commission on Higher Education (CHED), this shall assess the needs of Higher Educational Institutions (HEIs) in terms of their resource management and prioritization, faculty profile and training needs, and curriculum responsiveness (CHED RO XI, 2022). Hence, the aid of MIS across learning institutions is seen as a mechanism to upgrade the current system.

From a social perspective, the integration of MIS in schools is seen as a pivotal contributor to the attainment of **Sustainable Development Goal 4 (SDG 4): Quality Education.** MIS enhances the management and delivery of education by providing tools for efficient administration, student tracking, curriculum management, and performance monitoring. Hence, it can contribute both to the Philippines' Net Enrolment Rate and Functional Literacy Rate in schools. In secondary education as in March 2021 in Senior High School, for example, the Net enrolment rate has

increased from 37.4 percent in 2016 to 47.8 percent in 2019. Furthermore, the Functional Literacy Rate has increased from 90.3 percent in 2013 to 91.6 percent in 2019 (CHED RO XI, 2022).

Apart from these initiatives, a challenge has been noted in the Davao Region that the Net Completion Rate for Elementary has decreased from 2017-2021 (DEPED XI, 2021). This dilemma has been noted as one of the extrinsic motivators in the trajectory of this research. By investigating the factors that influence the use of MIS, the issues concerning the Teacher-Student ratio may be acted upon by considering the perceived usefulness and ease of use of MIS for the teachers. Hence, the hypothesized model on usefulness and ease of use of MIS and other contributing factors shall be investigated to extract information and present some benchmarks for policy-making initiatives.

The succeeding discussions present the highlights and the impact of the following factors: Management support, Social Influence, Personal I.T. innovativeness and convenience,(Lu, Yao & Chun-Sheng Yu, 2005) and MIS with system quality perceived usefulness and perceived ease of use as indicators (Davis and Ventakesh, 2000).

The factor of top management support refers to many different forms, such as transparent feedback on performance, participation in crucial choices by employees, open communication between employees and managers, and assistance with challenging jobs (Sussex, 2020). This was also supported by (Shihua, 2021) stating that management support is crucial for the development of the service culture and service innovation. In connection with the preceding management support concepts, the aspects of psychological health, social well-being, and work-related functioning as well as managerial support for basic psychological requirements are all linked to autonomous self-regulation at work among employees (Wiliams, 2020). These all point out that top Management, support plays a critical role in facilitating the acceptance of Management Information Systems (MIS) among employees (Livari & Hirschheim, 1996) ; Lee, 2011) and that the visible involvement of top management in the implementation and ongoing use of MIS fosters a supportive organizational climate, which, in turn, enhances employees' confidence, trust, and willingness to accept the system (Lee, 2011; (Rainer,R.,K.,Jr., Cegielski,C.G.,& Splettstoesser-Hogeterp, I, 2014).

Effective top management support involves providing necessary resources, clear communication, and promoting the benefits of MIS (Goodhue, D.L., & Thompson, R.L., 1995); (Lee, 2011); and this was supported by related studies that revealed that the presence of top management support significantly influences the acceptance and successful implementation of MIS, underscoring its importance as a critical factor in shaping organizational acceptance and system effectiveness (Goodhue & Thompson, 1995; Iivari & Hirschheim, 1996).

Also, social influence has emerged as a critical determinant influencing individuals' acceptance of Management Information Systems (MIS), as peer opinions and behaviors significantly shape perceptions and attitudes toward technology adoption (Venkatesh, V.,Morris, M.G.,Davis G.B., & Davis, F.D. , 2003). The impact of social factors, including subjective norms, social interaction, and the influence of opinion leaders, is paramount in understanding the drivers of MIS acceptance within organizational contexts (Chin, W.W , 1998) Ifinedo, 2011) .

These concepts shape the people in fostering a positive environment for MIS acceptance and continued usage (Ifinedo, 2011); (Moore,G.C., & Benbasat, I. (1991), 1991) and recognize the influential power of superiors and colleagues within the workplace which influence individuals' beliefs, behaviors, and overall acceptance of MIS (Moore & Benbasat, 1991).

The concept of Personal IT innovativeness reveal reveals that the person's disposition or attitude reflects his or her propensity to experiment with mobile health devices and another technological advancements (Donoghue, 2019). This was supported by (Agarwal & Prasad, 1998) who said that the construct of personal innovativeness in information technology has moderating effects on both the causes and effects of individual perceptions of new information technology. Also, (Rosen, 2021)reiterated that personal innovativeness is characterized as a person's openness to experimenting with new information technologies.

The last factor which is convenience refers to anything that makes life easier or more comfortable by reducing job requirements (Yuhns, 2021). (Anderson, 2018) explained that customer convenience has long been considered, especially in consumer behavior and retail literature. The idea of convenience has not gotten more attention in marketing given the understanding in marketing theory that convenience, or lack thereof, is related to the non-monetary cost of the exchange to the customer (Warde, 2018).

The independent variable which is the Structural Factors composed of the following items: social, political, economic, and environmental factors at the national, regional, and international level (Geneva, 2021). The findings of Goldman, (2018) explained that strong social and cultural capital, as outlined in the individual aspects, links students to a network of people who can offer perspective on the college experience and faculty members (Semrush, 2021). On the other hand, the dependent variable is the Information System. It refers to the study of individuals, groups, organizations, and the connections between them (Tamu, 2023) . Also, (Wehner, 2023), explained that information systems are used by businesses at all levels of operation to gather, process, and store data. As a result, Management Information System (MIS) experts are can play a significant role in areas like information security, integration, and exchange by cooperating with other members of their work group as well as with their customers and clients (Baker, 2023). The IT's first indicator perceived usefulness (PU) refers to the extent to which individuals

believe how useful the technology would be (Ma, Jin Gam & Banning, 2017). For instance, a research finding has been acknowledged for adopting communication tactics to demonstrate the value of incorporated technology in their business operations (Lederer, 2022). Apart from this, it is defined as the degree to which individuals perceive how easy it is to use the technology (Ma, Jin Gam & Banning, 2017).

This study is anchored on the Theory of Planned Behavior of (Davis and Ventakesh, 2000). The theory supposes the idea that people behave logically by their attitudes, personal norms, and sense of behavioral control. Although not often actively or consciously considered, these elements serve as the framework for making decisions. In other words, even if people don't express a certain attitude, it still might have an impact on their choices.to predict an individual's intention to engage in a behavior at a specific time and place. The theory intended to explain all behaviors over which people can exert self-control.

In psychology, the theory of planned behavior (abbreviated TPB) is a theory that links beliefs and behavior. The concept was proposed by Icek Ajzen to improve the predictive power of the theory of reasoned action by including perceived behavioral control. It is a theory explaining human behavior. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions, and behaviors in various fields such as advertising, public relations, advertising campaigns, and healthcare. Based on the (Azjen, 2001) recommendation, three basic items are used to determine the intention of a person and the stems or the items statement stats as I intend; I want; and I plan. Furthermore, the dependent variable is supported by the theory of the Technology Acceptance Model" (TAM), developed by (Davis, Bagozzi, and Warshaw, 1989), which serves as the theoretical basis for this research. This model seeks to figure out what aspects influence user satisfaction in the use of a Management Information System.

Also, (Aizen, 1991) forecasts that deliberate actions are made. by behavioral goals that are significantly impacted by a person's attitude toward a behavior, the arbitrary standards that govern how that behavior is carried out.

The independent variable focuses on structural factors, which are represented by the indicators of management support, social influence, personal IT innovativeness, and convenience. Management support encompasses various forms, including transparent feedback on performance and employee participation in decision-making processes. Social influence refers to the process through which individuals or groups affect the attitudes, beliefs, or behaviors of others via direct or indirect communication, conformity, persuasion, or coercion. Personal IT innovativeness pertains to an individual's inclination to independently experiment with mobile health devices, irrespective of others' reported experiences. Additionally, convenience refers to elements that enhance ease and comfort by reducing job requirements (Lu, Yao & Chun-Sheng Yu, 2005). The dependent variable

is the perceived level of usefulness of the Information System, measured in terms of individuals' belief in its utility, and the perceived ease of use, denoting individuals' perception of the system's usability (Ma, Jin Gam).

The researcher has not come across similar studies in the locality since most of the previous studies were conducted abroad. Future developments, such as the integration of tablet and smartphone-based attendance monitoring, are advised. Additionally, a campus kiosk linked to the database server should be installed for the purpose of accessing grades and schedules. (B.G. Grepon, 2022) Thus, there is an urgency to conduct the study to contribute to the existing body of literature.

The primary objective of this study is to examine the factors influencing the acceptance of the management information system (MIS) among Public School Teachers. Specifically, the researcher aims to achieve the following objectives: Firstly, to determine the perceived level of structural factors, including management support, social influence, personal IT innovativeness, and convenience. Secondly, to measure the level of acceptance of the MIS among Public School Teachers in terms of perceived usefulness and perceived ease of use. Thirdly, to ascertain the relationship between structural factors and the acceptance of the MIS among employees. Lastly, to analyze which domain of technology factors significantly influence the acceptance of MIS among Public School Teachers. Through these objectives, the study aims to provide insights into the factors that impact the acceptance of MIS among Public School Teachers, ultimately contributing to the enhancement of information systems implementation and utilization in educational institutions.

The adoption and use of management information systems by employees is a complicated process, yet it has the potential to address intricate problems (Ugur, 2021). As such, management information systems can be utilized to assist education managers in reaching decisions that are strategic, tactical, and operational (Emis, 2019); however structural factors may affect their acceptance of management information systems.

Hence, the objective of this research is to examine the pertinent factors influencing how individuals should perceive the value of MIS and consider adopting necessary changes and coping with this fast-changing world. Furthermore, this study aims to analyze which domain of structural factors best influences the acceptance of Management Information Systems (MIS) among Public School Teachers.

This study provides information that will undoubtedly be useful and a reference for their upcoming research. Last but not the least, this gives the researcher clear and substantial information about the factors influencing how individuals should evaluate the importance of MIS and consider implementing essential modifications to cope with this fast-changing world in Public Schools. This information

undoubtedly aids the researcher in understanding the Significance of being digitally oriented individual.

II. METHOD

➢ *Research Respondents*

An on-line sample size calculator was used in identifying the total number of respondents. Stratified random sampling was used to obtain a sampling frame as shown in the summary of the distribution of respondents (Calder, 2013). The stratified random sampling is the technique for the selection of sample, and there is a chance for each member of the population to pick sample. (Iliyasu & Etikan,, 2021) This study has come up with a total number of 300 respondents from different public schools. The breakdown of respondents per school is as follows: Sigaboy Agricultural Vocational School (SAVS) had 54 respondents, Tibanban National High School (TNHS) had 80 respondents, Sigaboy Central Elementary School 48, Enrique Orencia Elementary School 59, Serapion C. Basalo Elementary School 13 and Nangan National High School 46.

The proposition of (James, 2017), states that the ideal number of respondents is 300. Further, the researcher ensured that the respondents understood the content of the survey questionnaire and were capable of relating their life experiences, especially in the school setting.

Respondents who volunteered to participate in the survey and who are Public School Teachers of Governor Generoso, Davao Oriental were included; on the other hand, the students were excluded from this study; hence, the focus of the study was the Public-School Teachers because the suspected challenges are directly attributable to the latter. Public School Teachers were probably more challenged in accepting the management information system in this era due to their old practices, particularly in teaching. Public School Teachers who refuse to participate in answering the questionnaires are excluded. Withal, they are free to withdraw from their participation in the conduct of the study if they find that some questions make them uncomfortable. Their reasons and well-being are highly prioritized by the researcher. The respondents of this study covered the public school teachers both Elementary and Secondary because these teachers did not undergo formal training or seminars on the use of MIS in their schools. They relied on their personal experiences as they used their gadgets, therefore they were all self-taught.

➢ *Material and Instrument*

This study utilized adapted and modified research questionnaires. The first instrument was adapted from (Ahmed & Mohamed, 2017) on the Development and Validation of an Instrument for Multidimensional Top Management Support, (Agnis & Cugelman,2019) on the Social Influence Scale for Technology Design and Transformation, (Agarwal & Prasad, 1998) on A Conceptual and Operational Definition of Personal Innovativeness in the Domain of Information Technology, (Aagja, Mammen and Saraswat, 2011) on Validating Service Convenience Scale

and Profiling Customers: A Study in the Indian Retail Context. The second instrument was adapted from (Davis,1989) on Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. These questionnaires were carefully restructured. To validate the adapted and modified questionnaires, a panel of six experts was involved. This panel consisted of five internal validators and one external validator. The validation process considered several factors, including objectivity, appropriateness, suitability of questions within each category, presentation, organization of items, and alignment with the primary objective of the study. The validated survey questionnaire received an excellent rating of 4.20.

Furthermore, to guarantee the suitability of the instrument, the questionnaire was pre-tested using Cronbach Alpha, a method used by academics to examine the validity of multiple-question surveys utilizing the Likert scale. To satisfy the assumptions on the reliability (at >.70 Cronbach Alpha) of the instrument, a Pilot survey test was conducted for 40 respondents. The faculty members were instructed to give ratings, based on a five-point scale ranging from 5 (very high) to 1 (very low), as presented in Tables 1.

The first draft of the research questionnaires was submitted to the researcher's adviser for comments and the final copies were submitted to a panel of experts from the University of Mindanao and one external validator, for enhancement.

The questionnaires were subjected to pilot testing with 30 samples using Cronbach alpha to determine the reliability. Excellent internal consistency is demonstrated by the high Cronbach's alpha coefficients of Management Support (0.896), Social Influence (0.332), Personal IT Innovativeness (0.357), Convenience (0.669), Perceived Usefulness (0.738), Perceived Ease-of-Use (0.900). This implies that the scales in question are probably valid and trustworthy instruments. Indicating that the entities were generally given favorable reviews for all items.

Table 1 Likert Scale for Structural Factors

Range of Mean	Descriptive Level	Interpretation
4.20-5.00	Very High	It means that the item is always embodied or observed.
3.40-4.19	High	It means that the item is oftentimes embodied or observed.
2.60-3.39	Moderate	It means that the item is sometimes embodied or observed.
1.80-2.59	Low	It means that the item is rarely embodied or observed.
1.00-1.79	Very Low	It means that the item is never embodied or observed.

➤ *Design and Procedure*

This study utilizes a quantitative non-experimental research design, employing a descriptive-correlational technique and a structural equation model to develop an optimal fit model for business performance. Non-experimental research is a prominent approach where researchers observe natural occurrences without introducing external factors. (Asenahabi, 2019). Moreover, this study employed the Path Analysis approach. Path Analysis is the simplest case of the Structural Equations Model. Generally, path models ordinarily contain several measure variables configured in more complex ways than simple mediation. These types of models were originally called causal models (Clement, 2022). By using the Path Analysis, the researcher was able to evaluate hypothesized relationships between the variables represented by the data.

The following procedures were utilized to obtain the data required for this research study. The researcher drafted a letter addressed to the School Principals of various public schools in Governor Generoso, Davao Oriental, with the adviser's recommendation and approval from the Dean of the Professional Schools of the University of Mindanao, requesting permission to conduct the study on Factors Leading to the Acceptance of Management Information Systems in Public Schools. After getting the approval, the researcher administered the research instrument; during this time, respondents were informed of the study's premise (Informed Consent Form) and, if they agreed, were given a questionnaire, which the researcher assisted them in completing. This study was conducted Face-to-face from November 2023 to December 2023.

After administering the research instruments, the researcher processed the Public Schools to personally administer the survey questionnaires to the identified respondents. One hundred percent of the distributed questionnaires were retrieved. The accomplished results were obtained, collected, checked, tabulated and encoded into a spreadsheet. Then, the data was analyzed and interpreted by the University statistician.

The statistical tools below were used in this study: Mean was used to answer the problems about the level of structural factors and acceptance of management information systems among faculty members. Pearson Product-Moment Correlation Coefficient was used to measure the relationship between structural factors and acceptance of management information systems among faculty members is significant. Multiple Regression using Path Analysis was applied to determine which domain of structural factors best influences the acceptance of management information systems among Public Schools.

The researcher observed and followed full ethical standards in the conduct of the study following the study protocol assessments and standardized criteria, particularly in managing the population and data such as, but not limited to the following: First, for voluntary participation, the employees of the selected school were given the freedom to participate without any form of consequence penalty or loss

of benefits. Therefore, after the purpose and the benefits, the study was described and presented to the participating school. Then the rights of the respondents to contribute to the body of knowledge were carefully considered and adhered to.

Second, the researcher was not forcing the respondents to have their names written on the questionnaire for confidentiality reasons. The researcher ensured that the questionnaires were kept private and treated with the strictest confidentiality of all the respondents' personal information that was required in the study, for privacy and confidentiality. Moreover, for the Informed consent process, the researcher shall inform the respondents that the questionnaires are free from technical terms, this makes it easier for them to understand all the items, as well as a clear view of the benefits they may get after the conduct of this study. The research questionnaire was administered with the consent of the School Principal.

Third, as the researcher is currently working as a college part-time instructor, she had already met the number of respondents to be recruited as participants even before the conduct of the study, which makes it easier for her to disseminate the questionnaires at scheduled times. The data collection procedures were indicated, as well as how the questionnaires were administered, and the kind of respondents involved in the study.

Fourth, the study shall undergo a plagiarism detection test using Grammarly or Turnitin software Fifth, the study has no trace of purposefully misrepresenting the work to fit a model or theoretical expectation and has no evidence of over-claiming exaggeration falsification.

Sixth, there shall be no traces of Conflict of Interest (COI) that refers to participants benefitting from or the validation of the study which tends to be affected by a secondary interest such as money matters or academic gains or recognition.

Lastly, to further address the issue of COI, the research has extended the scope of research by including appropriate schools in the Davao Oriental Area. Apart from the school where the researcher is working, the following schools have been included in the study: Sigaboy Agricultural Vocational School (SAVS), Tibanban National High School (TNHS), Sigaboy Central Elementary School, Enrique Orencia Elementary School, Serapion C. Basalo Elementary School, Nangan National High School.

In totality, the study had no trace of deceit that may cause potential harm to the respondents, as it adheres to the University of Mindanao Ethics Review Committee the guidelines on ethical consideration. After their approval, the questionnaire underwent pilot testing and the data collected was interpreted for the consistency of the research questionnaire. Additionally, after completing the study proposal, the researcher received certification that confirms the research paper complied with the UMERC-2023-442 University's Ethical Standards.

III. RESULTS AND DISCUSSION

The data obtained from the respondents on the perceived level of acceptance of the Management Information System (MIS) of public-school teachers are presented, analyzed, and interpreted in this section based on the research objectives previously stated. The order of discussions on the mentioned topic is as follows: Level of structural factors; Level of acceptance of MIS use; Correlation matrix for structural variables on acceptance of MIS use; and the Result of Path Analysis showing the regression weights per structural variables on perceived ease-of-use and usefulness of MIS.

➢ *Structural Variables of MIS use*

In Table 2, the level of structural variables of MIS use has an overall mean of 4.55 with a standard deviation of 0.325 with a verbal interpretation of very high in the Management Support. Results show that Social Influence obtained a mean value of 4.58 with a standard deviation of 0.420 with a verbal interpretation of very high. Meanwhile, Personal IT innovativeness has a weighted mean of 4.51 with a standard deviation of 0.490 described as very high. On the other hand, the overall Convenience obtained a mean score of 4.52 with a standard deviation of 0.434 described as very high.

Table 2 Descriptive Statistics for Structural Variables of MIS use

	Mean	SD	Descriptive Level
Management Support	4.55	0.325	very high
Social Influence	4.58	0.420	very high
Personal IT Innovativeness	4.51	0.493	very high
Convenience	4.52	0.434	very high

➢ *Acceptance of MIS use*

In Table 3, the weighted mean of acceptance of MIS use was computed in which the Perceived usefulness has a weighted mean of 4.57 with a standard deviation of 0.470 with a descriptive interpretation of very high. Further, the Perceived Ease- of Use obtained a mean value of 4.50 with a standard deviation of 0.496 which is described as very high.

Table 3 Descriptive Statistics for Acceptance of MIS use

	Mean	SD	Descriptive Level
Perceived usefulness	4.57	0.470	very high
Perceived ease-of-use	4.50	0.496	very high
Overall Acceptance of MIS	4.53	0.483	very high

➤ *Relationship between Structural Factors and Acceptance of MIS use*

Table 4 shows the results of the test of the relationship between structural factors and acceptance of MIS use. Reflected in the hypothesis, the relationship was tested at a .01 level of significance. The Perceived usefulness is positively correlated to Management Support with an R-value of 0.439, social influence of 0.409, personal IT innovativeness of 0.537, and 0.607 for convenience.

Further, the perceived ease of use is positively correlated to the following acceptance of MIS use. Management support has an R-value of 0.494, social influence 0.511, personal IT innovativeness 0.596, and convenience with an R-value of 0.620.

Table 4 Correlation Matrix Showing the Significance of the Relationship of Structural Variables on Acceptance of MIS use

		Management Support	Social Influence	Personal IT Innovativeness	Convenience
Perceived usefulness	Pearson's r	0.439 ***	0.409 ***	0.537 ***	0.607 ***
		< .001	< .001	< .001	< .001
Perceived ease-of-use	Pearson's r	0.494 ***	0.511 ***	0.596 ***	0.620 ***
		< .001	< .001	< .001	< .001

These findings suggest that both perceived usefulness and perceived ease-of-use are significantly related to management support, social influence, personal IT innovativeness, and convenience. The P-values indicate that these correlations are statistically significant, bolstering the strength and credibility of the observed relationships.

Path analysis showing the regression weights of paths of structural variables on perceived ease-of-use and usefulness of *MIS* Table 5 presents the result of paths analysis which involves estimates, standard errors (S.E.), critical ratios (C.R.), P-values, and decisions regarding the null hypothesis (Ho). The analysis focused on the linear relationships between Ease-of-Use, Social Influence, Personal IT Innovativeness, Convenience, and Management (Mgt) Support toward the dependent variables Ease-of-Use and Usefulness.

Table 5 Path Analysis Showing the Regression Weights of Paths of Structural Variables on Perceived ease-of-use and usefulness of MIS

	Estimated Path	Estimate	S.E.	C.R.	p-value	Decision on Ho
Ease-of-Use <---	Social Influence	.147	.059	2.488	.013	Reject
Ease-of-Use <---	Personal IT Innovativeness	.282	.051	5.513	***	Reject
Ease-of-Use <---	Convenience	.364	.059	6.163	***	Reject
Ease-of-Use <---	Mgt Support	.303	.071	4.302	***	Reject
Usefulness <---	Mgt Support	.095	.064	1.488	.137	Failed to reject
Usefulness <---	Social Influence	-.062	.052	-1.183	.237	Failed to reject
Usefulness <---	Personal IT Innovativeness	.087	.047	1.849	.064	Failed to reject
Usefulness <---	Ease-of-Use	.524	.051	10.375	***	Reject
Usefulness <---	Convenience	.231	.055	4.212	***	Reject

The path analysis conducted revealed significant relationships between various factors and the perceived ease-of-use and usefulness of MIS. For perceived ease-of-use, four predictors were found to be statistically significant. Social influence has a positive effect (β=0.147, p = .013), suggesting that the opinions and behaviors of peers or influential groups in the educational environment can positively impact how easily users find the MIS to navigate and utilize. Personal IT innovativeness shows a more substantial positive effect (β=0.282, p<.001), indicating that individual innovative tendencies towards information technology correlate strongly with the perception of the MIS being easy to use. The strongest predictor for ease-of-use is convenience (β=0.364, p<.001), emphasizing that the practicality and accessibility of the MIS are crucial for users to perceive it as user-friendly. Additionally, management support also significantly predicts ease-of-use (β=0.303, p<.001), highlighting the importance of institutional backing in shaping positive perceptions of the MIS's ease of use.

In contrast, the perceived usefulness of the MIS is influenced differently. Management support, social influence, and personal IT innovativeness did not show statistically significant effects on perceived usefulness, with P-values of 0.137, 0.237, and 0.064, respectively. This suggests that while these factors are important for ease-of-

use, they do not directly translate to perceived usefulness. However, the relationship between ease-of-use and perceived usefulness is highly significant (β=0.524, p<.001), indicating that the easier an MIS is to use, the more useful it is perceived to be by the users.

Moreover, convenience also significantly impacts the perceived usefulness of the MIS (β=0.231, p<.001), suggesting that the practical benefits of the MIS contribute to its perceived utility in the educational process.

These findings imply that for the effective adoption and positive perception of an MIS, focus should be placed on enhancing its convenience and ease-of-use. Management and social influences, while impactful for ease-of-use, may not directly influence the system's perceived usefulness, which seems to be more closely tied to the system's inherent functionality and user-friendly design.
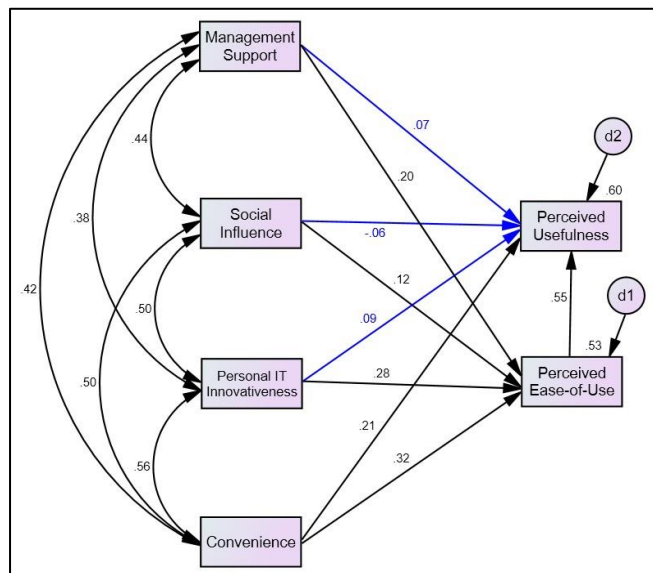

Fig 1 Path Diagram Showing the Estimated Variables in a Standardized Solution

Based on the results shown in Figure 1, we observed several significant findings. This figure illustrates the path diagram of estimated variables, focusing on perceived usefulness and perceived ease-of-use of Management Information Systems (MIS) as structural factors. Four key structural factors were identified: Management support, Social Influence, Personal IT Innovativeness, and Convenience. The results indicate that Management support positively influences perceived ease-of-use, while Social Influence, Personal IT Innovativeness, and Convenience are all linked to perceived ease-of-use, suggesting a positive relationship between the use of technology in schools and users' perceptions of its ease-of-use. However, three factors—Management support, Social Influence, and Personal IT Innovativeness—were not directly linked to perceived usefulness, implying that despite high levels of these factors, they do not directly affect the usefulness of technology in schools. Conversely, Convenience was found to significantly influence perceived usefulness, indicating that the more convenient technology is to use, the more

likely it is to be perceived as useful. Overall, these findings emphasize the importance of considering convenience in technology adoption decisions in educational settings.

➢ *Structural Variables of MIS use*

The overall level of management support comprising indicators such as providing resources, structural arrangement, communication, expertise and power was very high. The overall management support, social influence and personal IT innovativeness were also very high. Further, decision convenience access convenience and benefit convenience were described as very high. This implies that the structural variables of MIS use are always observed.

This finding aligns with Johnson et al.'s (2020) study, which revealed that teachers are more likely to adopt LMIS when they see it as beneficial to their teaching methods, classroom management, and overall educational outcomes. Structural factors influencing LMIS acceptance include elements like the availability of training programs, institutional support, and alignment with broader educational goals. For instance, support from management plays a crucial role in the successful implementation and acceptance of technological innovations, such as Learning Management Information Systems (LMIS) in educational settings (Lee et al., 2019). Additionally, (Rogers & Brown, 2020) study highlights the importance of social influence in the diffusion of innovations. In the context of LMIS, teachers are more likely to embrace the system if they perceive that their respected peers actively support and use the technology in their teaching practices.

➢ *Acceptance of MIS use*

The perceived usefulness as well as the perceived ease-of-use were described as very high. This finding implies that the acceptance of Management Information Systems Use is always observed. These findings corroborate with Sharma, (2019) who postulated that when the information system was introduced, people began to accept change inside and this may be impacted by how they felt the new applications would impact their ability to do their jobs or performance. In academic institutions, for example, the freedom of individuals, is highly valued. The aforementioned concept is supported by Aubert, Barki, Patry and Roy (2018) wherein it argues that benefits from information systems are not valued if organizations experience low utilization by the intended users.

➢ *Relationship between Structural Factors and Acceptance of MIS use*

The test of the relationship between structural variables on acceptance of MIS use revealed a significant relationship between perceived usefulness and perceived ease-of-use. This implies that structural variables such as management support, social influence, personal IT innovativeness, and convenience are correlated with the acceptance of MIS. Furthermore, the increase of structural factors would likely increase the acceptance of Management Information System use.

This suggests that respondents consistently encountered structural aspects in MIS use. This aligns with Johnson et al.'s (2020) study, indicating that teachers adopt LMIS when they see it benefiting their teaching methods, classroom management, and overall education. Factors influencing LMIS acceptance include training program availability, institutional support, and alignment with broader educational goals. Management support, especially, is crucial for the successful implementation of technological innovations like Learning Management Information Systems (LMIS) in education (Lee et al., 2019).

Rogers and Brown's (2020) study emphasize the role of social influence in innovation diffusion. In the LMIS context, teachers are more likely to adopt the system if they perceive support and active use of the technology among respected peers.

Path analysis showing the regression weights of paths of structural variables on perceived ease-of-use and usefulness of LMS.

The path analysis conducted reveals significant relationships between various factors and the perceived ease-of-use and usefulness of an LMS. For perceived ease-of use, four predictors were found to be statistically significant.

In contrast, the perceived usefulness of the LMS is influenced differently. Management support, social influence, and personal IT innovativeness did not show statistically significant effects on perceived usefulness. This suggests that while these factors are important for ease-of-use, they do not directly translate to perceived usefulness. However, the relationship between ease-of-use and perceived usefulness is highly significant indicating that the easier an LMS is to use, the more useful it is perceived to be by the users.

The findings of this study supported by Geneva (2020) who postulated that problems such as information system failure are a result of structural issues at all levels that either increase or decrease an individual's likelihood of experiencing violence, exploitation, or abuse in the work area. Further, Kim and Kankanhalli (2019) claimed that when introducing new technologies, the acceptance of change starts within the individuals and this could be influenced by the way they perceived the new applications and their effect on their job performance.

IV. CONCLUSION AND RECOMMENDATION

This academic investigation revealed very high-level structural factors and experiences which includes very high levels for all domains, namely; management support, social influence, personal IT innovativeness, and Convenience. Also, the overall level of acceptance of MIS use among faculty members is found to be very high as well as the domains which comprise it, such as perceived usefulness, and perceived ease of use. Thus, the study revealed a clear connection between structural factors and acceptance of MIS use.

Path analysis revealed a significant relationship between various factors in perceived ease-of-use and usefulness. Further, the ease-of-use influenced management support, convenience, personal IT innovativeness, and social. On the other hand, the perceived usefulness did not influence management support, social influence, and personal IT innovativeness. The result supports the proposition of (Dinner, 2015) that the relationship between acceptance of MIS use and structural factors is significant, given the idea in his study that only one among the indicators serves to bring about influence in the relationship between the remaining variables. However, (Crowne, et al, 2006) reiterated that there is a possibility that the respondents may have not accurately rated themselves on their extent of acceptance of MIS use experiences and structural factors because of the infamous social desires like the possibility to react in a way that is socially and culturally acceptable; this is congruent to the findings of (Fox, & Boulton, 2005) , wherein self-narrate information was significant with information from different groups of respondents in determining the relationship between structural factors and acceptance of MIS use. The overall acceptance of MIS use experiences has shown clear significance towards the structural factors among faculty members.

Based on the foregoing findings and conclusions, several recommendations are offered. Due to consistently high levels of structural factors (management support, social influence, personal IT innovativeness, and Convenience), both public school teachers and parents need to remain receptive to students' use of MIS. This entails understanding the necessity for adaptation in the computer generation and actively seeking knowledge about the usefulness and acceptance of MIS use. Moreover, integrating topics across all subjects taught by teachers would prove highly beneficial, as 'learning by doing' tends to be effective. Furthermore, the school administration should enhance their teaching methods through the integration of technology.

The consistently high acceptance of MIS use is driven by factors such as perceived usefulness and perceived ease of use, indicating a pervasive pattern among faculty members. Future researchers can leverage these findings for more accurate results in assessing structural factors and MIS use acceptance. Additionally, teachers can foster assertiveness in students by strategizing ways to enhance their knowledge of classroom technologies. Encouraging students to participate in various activities and explore different conceptual understandings enhanced their technological skills.

Finally, the research highlights the potential influence of structural factors on MIS acceptance, suggesting that school administrators should consider organizing training. Specific training programs for teachers include MIS Navigation and Functionality Training, focusing on tasks like data entry and report generation; Data Management and

Analysis Skills Training, teaching protocols and techniques for data interpretation and analytics; Pedagogical Integration of MIS Training, demonstrating how to personalize instruction and track student progress using MIS tools; Collaborative Learning and Peer Support Sessions, providing opportunities for teachers to share best practices and troubleshoot challenges; Policy Awareness and Compliance Workshops, educating teachers on relevant policies and data privacy laws; and Continuous Professional Development Programs, offering ongoing training through refresher courses and access to resources to keep teachers updated on MIS trends. These programs aim to equip teachers with the necessary skills and knowledge to effectively utilize MIS tools in alignment with educational policies, ultimately enhancing teaching practices and student outcomes. Also, seminars to improve their proficiency in alternative record-keeping systems such as cloud-based servers, Google Drive, and Dropbox. while addressing challenges like intermittent internet connectivity to fully utilize MIS in the Governor Generoso area on the importance and proper usage of technology.

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