



**A STRUCTURAL EQUATION MODEL ON CHANGE
MANAGEMENT IN PUBLIC SCHOOLS AS INFLUENCED
BY ATTITUDES TOWARDS TECHNOLOGY, QUALITY
OF WORK LIFE, EMOTIONAL INTELLIGENCE, AND
TRANSFORMATIONAL LEADERSHIP OF SCHOOL HEADS**

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Abstract:

The study determined the best-fitting structural model of change management in public schools in Region XI, Philippines. It investigated the relationships among exogenous variables – attitudes towards technology, quality of work life, emotional intelligence, and transformational leadership of school heads – and their impact on change management in public schools. The study employed a descriptive correlational technique through structural equation modelling (SEM). A total of 400 public school teachers were selected using a proportionate stratified random sampling technique. Findings revealed very high levels of all exogenous variables: attitudes towards technology, quality of work life, emotional intelligence, and transformational leadership of school heads, as well as very high levels of the endogenous variable, change management in public schools. There were significant correlations between attitudes towards technology and change management, quality of work life and change management, emotional intelligence and change management, and transformational leadership of school heads and change management. Further results showed that model 3 was the best fitting model, demonstrating the direct causal relationships of attitudes towards technology, quality of work life, emotional intelligence, and transformational leadership of school heads on change management in public schools. After structural modifications, attitudes towards technology were represented by the retained domains: pursuing technology and technology use, reinforced by quality of work life, with remaining indicators organization, culture, and climate, and adequacy of resources. Likewise, the structure

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was further reinforced by emotional intelligence, with retained measures: recognizing other's emotions and building relationships, while its retained indicators measured the transformational leadership of school heads: intellectual stimulation and individualized consideration. Finally, the endogenous variable change management in public schools was defined by its retained domains, namely: technology adoption and facilitating conditions.

SDG Indicators: #4 Quality Education; #8 Decent Work and Economic Growth

Keywords: education and pedagogy, attitudes towards technology, quality of work life, emotional intelligence, transformational leadership, SEM, public school teachers

1. Introduction

At the current level of scientific development, the obstacles to change management in institutions include differences in leadership, differences in management and change mechanisms, markers of change, the effectiveness of strategic initiatives, and the career paths of employees (Rudnev, 2020). In the education sector, the knowledge component of the system, such as the lack of predetermined guidelines for system implementation, the leader's authority, where leaders lack a clear definition of their authority and responsibility to make decisions, and finally the performance appraisal deficiency because it is not conducted regularly and the reward system is unrelated to performance appraisal, were the weaknesses that were identified, subsequently change management become the primary concern that need to address (Errida & Lotfi, 2021).

Change management is indispensable for keeping schools aligned with the arising needs in achieving the institutional goals and objectives among educational institutions (Onyeneke & Abe, 2021). Most organizations now adapt to change because it is inevitable, and different authors see it from various perspectives. Change management will respond to the promotion of economic development and to complying with regional, national, and international obligations with improved performance and productivity (Cameron & Green, 2019). It makes the organization more flexible and fit for current trends (Jackson, 2019). Additionally, change management in an institution boosts worker productivity, sub-managers' decision-making, dispute resolution, error and defect reduction, organizational performance, and worker motivation (Chatterjee, Chaudhuri, Vrontis, & Galati, 2023; Mahamoud Hasan, Aparisi-Torrijo, & González-Ladrón-de-Guevara, 2025). Thus, understanding the various factors that influence change management is essential.

Hence, Sinkeaw (2003) stressed that change management factors showed a connection with employees' attitudes within the information technology system environment. It also validated the study results published by Brown (2009), which showed that attitude towards technology is associated with the readiness to change management. Relatedly, Negovan (2011) highlighted that technology acceptance

contributed to a larger change management field. Educational standards expect teachers to show positive attitudes towards digital technology to improve teaching and learning activities and outcomes (Sofwan, Habibi, Attar, Alqahtani, Alahmari, & Alhazmi, 2024). Also, a positive and significant association between change management and the Quality of Work Life (QWL) of managers of sports clubs in the city of Tabriz has been stressed by Zare and Janani (2015). In Vietnam, Halim and Kovara (2024) found out that employees' quality of work life and change management were correlated. Quality of Work Life (QWL) ensures the workforce leads the fullest, happiest and most meaningful life, adding value to the organization through a balance of work life. Thus, enhancing employees' performance extraordinarily and resilience (Sajitha, 2024). Similarly, QWL showed a positive and significant effect on performance while emerging as a primary driver of employee engagement and commitment (Membredo & Guhao Jr, 2022; Shidiq & Noekent, 2025).

Furthermore, Ugoani (2017) found that successful change management was related to emotional intelligence in the Nigerian banking industry. Also, there is a strong positive relationship between emotional intelligence and readiness for change among nurses (Mderis, Shosha, Oweidat, Al-Mugheed, Abdelaliem, Alabdullah, & Alzoubi, 2024). Moreover, correlation exists between managing emotions and managing change in the organization (Singh & Kaur Gujral, 2022). Various studies showed the implications of emotional intelligence in the workplace. Alutaya and Guhao (2023) emphasized the importance of emotional intelligence in enhancing work engagement among teachers. Also, Emboscado and Guhao (2024) stressed that self-efficacy can be enhanced through emotional intelligence. Escosora and Guhao (2023) articulated that emotional intelligence predicted positive organizational culture.

Nevertheless, change management also manifested a significant positive correlation with transformational leadership (Kung'u, 2019). Similarly, Alqatawenh (2018) found out that the dimensions of the transformational leadership, Idealized Influence, Inspirational motivation, Intellectual stimulation, Empowerment and change management were linked together. The Dickson and Kising (2019) findings showed that 51.1% of the relationship was explained by the four indicators of transformational leadership, namely idealized influence, inspirational motivation, intellectual stimulation and individual consideration of the dependent variable, change management. The importance of transformational leadership in influencing organisational effectiveness manifested in the study of Millado, Guhao & Rodriguez (2021).

This study is anchored on Social Exchange Theory by Peter Blau (1964). It posits that when organizations support employees to have user-friendly and updated to ever-changing technological innovations, they are likely to develop a better attitude toward technology and constant changes in the work environment, as well as implement change management. Hence, this work environment and support bring a quality work life that reciprocates lower resistance to change. Also, the employee's personal emotional intelligence validates the surrounding factors, such as trust and respect, enhancing

quality communication between leaders and subordinates, which will eventually facilitate smoother transitional change within the organization. Meanwhile, as transformational leadership fosters quality communication between leaders and subordinates, it allows employees to feel that their voices are carried out to whatever changes in management that will transpire in the future.

This research work is also supported by the Theory of Reasoned Action (TRA) of Fishbein and Ajzen (1975), which is used to explain the associations among the system's technology acceptance, behavioral intention, and actual technology use. This theory shapes a person's attitude towards technology, leading him to consider how he and the organization he belongs to align with current trends and innovations. This will serve as an antecedent for evaluating changes in the work environment, which, in turn, will lead to change management.

The research assessed the conceptual framework and proposed models for the best fit. This may help with managing transformations in public schools in Region XI, as shown in Figure 1. The initial conceptual framework illustrates the direct effect of exogenous variables such as attitudes toward technology, quality of work life, emotional intelligence, and transformational leadership on the endogenous variable of change management, as backed by relevant theories and research. Since latent variables are not directly observable, they cannot be measured directly. Each latent construct is linked to different measures or observed variables. As a result, the main focus of the research is the strength of the regression paths connecting the hidden and observed variables.

The Hypothesized Model 1, illustrated in Figure 1, shows how the four hidden exogenous variables relate to each other and their direct connections to the hidden endogenous variable. This is represented by the double-headed arrow that connects the four hidden exogenous variables: attitudes towards technology and quality of work life, quality of work life and emotional intelligence, emotional intelligence and transformational leadership, and transformational leadership and attitudes towards technology.

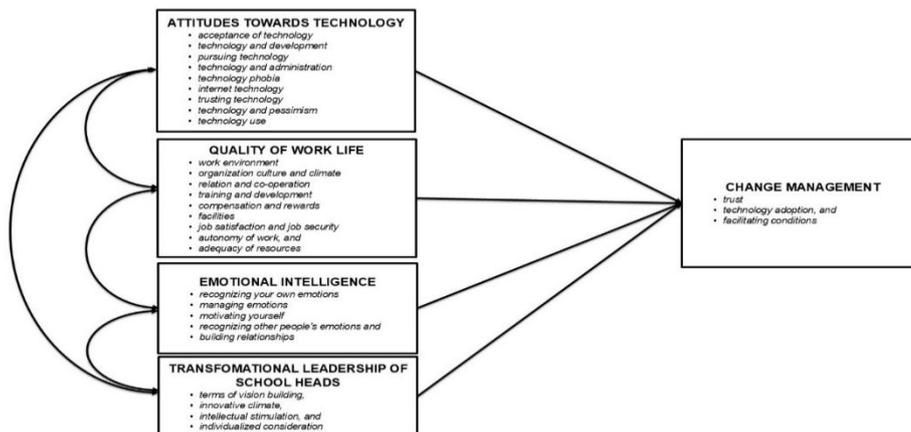


Figure 1: The study's Conceptual Framework shows the direct relationship between the hidden outside variables and the hidden inside variables

The unidirectional arrow from the four latent exogenous variables relates to change management. This is shown by a single-headed indicator that links the latent exogenous variables to the latent endogenous variable. The rectangular shapes represent the observed variables connected to both the latent exogenous and endogenous variables. The first exogenous variable is the attitude towards technology, measured by acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, trusting technology, technology and pessimism, and technology use (Akbaba Altun, 2001). Recently, research in technology attitude has been further advanced to explore the influences that various factors, like self-efficacy toward the technology, perceived usefulness of it, and social influences exerted on open attitudes concerning using digital tools across several contexts.

Pan (2020) found that students are motivated toward e-learning when their self-efficacy regarding technological matters is highly pronounced or when others regard their technology acceptance as highly acceptable in the positive direction. Teachers' attitude towards technology manifested through the following attributes: teachers are in favor of schools that employ technology (Boonmoh, Jumpakate & Karpklon, 2021), think that instructional technology improves learning, and that using technology in the classroom will be advantageous (Tuma, 2021). Additionally, they enjoy discussing technology with their coworkers. They believe that technology will improve human connections. They enjoy conducting research online and believe that technological advancements will expand their professional responsibilities at school (Zhang, 2022), while urging people to take advantage of technology. They also think that we have control over technology (Yılmaz, 2021).

On the other hand, the second latent variable, quality of work life, has work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources as indicators (Swamy, Nanjundeswaraswamy & Rashmi, 2015) as observed domains. In contemporary literature, the quality of work life is considered a basic factor in improving workers' satisfaction, commitment, and general well-being. Quality of work life has been most closely associated with job satisfaction and work-life balance factors in research that directly influence employee morale and productivity (Aruldoss, Kowalski, & Parayitam). Also, organization culture and climate an indicator of quality work life displayed significant influence on change management (Alanc & Kitapci, 2024; Gil, Mataveli, Garcia-Alcaraz & Ibanez-Somovilla, 2024).

They further highlight that reducing job stress and enhancing job security improves QWL, which in turn indicates elements mediating the relationship between work environments and organizational outcomes (Membredo & Guhao, Jr., 2022). The quality of work life of teachers in public schools in Manila, Philippines, was high, according to Panuelos and Pili (2025), as were the results of Eledio and Oca (2024) in

Davao del Norte. Additionally, among the manifestations of quality work life can be seen in teachers' belief that the learning environment is positive and very inspiring (Kilag, Uy, Calledo, Cerna, Villanueva, & Angtud, 2023). They had excellent relations with their school head and participated in choices that affected their work (Laurenio Jr, & Cabal, 2023). They are also given enough training to enable them to do their jobs well. They said that the school provided them with reasonable transportation allowances while they were travelling, and that they were fairly compensated for the work they did. They felt content and at ease in their position, which allowed them to apply their skills and abilities while providing them with tools to help them perform (Beardsley, Albó, Aragón & Hernández-Leo, 2021).

The third latent variable, emotional intelligence, has five observed indicators: recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships (Fenanlampir & Mutohir, 2021). As a result, two out of the five aspects of emotional intelligence, specifically empathy and self-motivation, continue to be indicators of work engagement (Alutaya & Guhao Jr., 2023).

Emotional intelligence research has made it clear that it enhances the performance of individuals and organizations. In good workplace environments, emotional intelligence has critical effects on decision-making, conflict resolution, and stress management (Dilawar, Durrani, Li, & Anjum, 2021). Studies have indicated that EI leads to better employee engagement and performance while having fewer burnout levels and more job satisfaction levels (D'Amico, Geraci & Tarantino, 2020; Alutaya & Guhao Jr., 2023). Emotional intelligence also leads to leadership. The emotionally intelligent leader is better placed to understand the team's emotional cues and respond accordingly, which would enhance the team's lead cohesion and productivity (Goleman, 2021).

Filipino teachers in Cebu, Philippines, exhibit high emotional intelligence, according to Go, Golbin Jr, Velos, and Bate (2020), with similar findings in Escarlos and Santillan (2023) in Maramag District. The high emotional intelligence teachers exhibit recognition and feeling self-emotions, understand the causes of feelings that occur, and are able to express anger appropriately (Kovalchuk, Prylepa, Marynchenko, Opanasenko and Marynchenko, 2022). They manifested control over aggressive behavior that can damage self and others (Mérida-López & Extremera, 2022). The teachers exhibit optimism when dealing with problems without losing focus on the given task. They were able to accept other people's points of view with empathy and sensitivity. Hence, they understood the importance of building relationships with others while resolving conflicts within themselves (Wang, 2023).

The fourth latent exogenous variable, transformational leadership, has four observed indicators, namely: vision building, intellectual stimulation, innovative climate, and individualized consideration (Moolenaar, Daly & Slegers, 2010). Recent studies have emphasized the benefits of transformational leadership, as it positively influences organizational outcomes, and helps establish employee well-being, motivation, and performance. Leadership styles include traits like idealized influence, inspirational

motivation, intellectual stimulation, and individualized consideration. These traits help create an environment that supports both personal and professional growth (Udin, 2023). Transformational leadership leads to organizational change and innovation through inspiring employees to step over the self-imposed barriers and strive to achieve organizational objectives, according to the research (Espita & Guhao Jr, 2022; Liyanage, 2020). Study results emphasized that there is a significant impact of transformational leadership on change management (Alqatawenh, 2018; Al-Qura'an, 2015; Hennayake & Maldeniya, 2021). During decision-making processes, transformational leaders consistently made open references to our school's goals (Crowley, 2022). They explained in detail how the school's vision relates to different programs, teamwork, and governmental endeavors. They studied, experimented voluntarily, and kept coming up with new ideas (Umair, Waqas & Mrugalska, 2024). In addition to constantly learning and coming up with new ideas, they inspired the teachers to seek out and discuss new material (Zainal & Mohd Matore, 2021). Finally, they were prepared to take risks to make the schools better (Myers & Pickeral, 2023).

The latent endogenous variable change management has three observed domains: trust, technology adoption, and facilitating conditions (Hye, Miraz & Habib, 2020). Change management is very significant for organizations in today's dynamic environment, where effective adaptation often relies on strategic leadership and employee involvement. Much research emphasizes that leadership style, particularly transformational, is of utmost importance in determining employees' positive perception towards the change initiatives. Transformational leaders enable employees to be adaptable to the changes by engaging regularly with team members and delivering transparent objectives of change with respect to morale building while minimizing resistance (Liyanage, 2020). Moreover, studies have found that managing change is more than a procedure is an actual organizational culture open to learning and continuous improvement (Hassan, 2020). These factors combine to make the implementation of change at least smoother and more sustainable in the long term within organizations.

The theories put forth by Arbaein, Alharbi, Alzhrani, Monshi, Alzahrani, and Alsadi (2024) show that instructors' faith and confidence in change management are important determinants of its efficacy. They thought that the resources required to put change management into practice were available. They found that the technologies they were employing were compatible with change management. People can seek help if they are struggling with change management (Bagga, Gera & Haque, 2023). Teachers believed that change management could achieve its objectives and that technology and legal frameworks would adequately protect them from change management problems (Chan, 2023). Additionally, they stated that when it comes to change management, stakeholders needed to be appropriately adaptable (Franklin, 2021).

In addition, Structural Equation Modeling (SEM) is important for finding the best-fit model. The proposed model shows that the oval shapes represent the latent variables of the research. The rectangular figures connected to the ovals represent the observed

variables of a latent construct. The single-headed arrow indicates a direct relationship between two variables, while the double-headed arrow shows a correlation.

In the local context, the researcher has not found any studies that used structural equation modeling (SEM) to look at the links between attitudes towards technology, quality of work life, emotional intelligence, transformational leadership, and change management in public schools. The majority of research conducted on change management focuses on only two or three variables. The major research gap in the domain of change management is an understanding of the comprehensive factors that influence successful outcomes in change initiatives, especially through the lens of structural equation modeling. Though interest in SEM applications for change management has grown, most studies currently lack integration of diverse, multidimensional variables that address both organizational and contextual factors affecting change management performance (Ringle, Sarstedt, Mitchell, & Gudergan, 2020).

This research aimed to find the best structural model for change management in public schools. In particular, this research aimed to evaluate attitudes toward technology regarding acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, trusting technology, technology and pessimism, and technology use. To assess the level of quality of work life of public-school teachers in terms of work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources. To evaluate the level of emotional intelligence of public-school teachers in terms of recognizing your own emotions, managing emotions, motivating themselves, recognizing other people's emotions, and building relationships. To assess the level of transformational leadership in terms of vision building, intellectual stimulation, innovative climate, and individualized consideration. Also, to ascertain the level of change management in terms of trust, technology adoption, and facilitating conditions.

Additionally, this research aimed to determine the significant relationship between attitude towards technology and change management among public schools, quality of work life and change management among public schools, emotional intelligence and change management among public schools, and transformational leadership and change management among public schools. Finally, to determine the best-fit model that predicts change management among public schools. At the same time, the following null hypotheses were tested at a 0.05 level of significance. First, there is no significant relationship between attitude towards technology and change management. Second, the quality of work life and change management. Third, emotional intelligence and change management. Fourth, transformational leadership and change management. Lastly, no model best fits change management among public schools.

This research is significant for education worldwide, as it will lay the foundation for the implementation and improvement of systems. By encouraging a greater

understanding of how change management is influenced by its surrounding factors such as external and human traits, this will help in developing stronger concepts in the educational field. This also supported the 2030 on quality education agenda number four (4) for Sustainable Development Goal and eight (8) to promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all (United Nations, 2015). As a result, it could clarify or perhaps address the pervasive issue of change management, which has decreased academic results in schools and is crucial to understanding the basic dynamics of educational administration.

The results of the research may serve as an important foundation for the development of systems and management programs at the university and other academic institutions. This could also provide relevant information to Department of Education officials for planning programs and activities that could possibly be employed to enhance any identified domains in the attitude towards technology, quality of work life, emotional intelligence, and transformational leadership, which could impact change management in public schools. This study could also be a significant baseline for policy-making. This would also be beneficial for the school administrator in guiding, overseeing, and facilitating change management.

The results of this study can be applied for further research or to consider the efficacy of attitude towards technology, quality of work life, emotional intelligence and transformational leadership as variables in predicting change management. This analysis could provide them with a cross-index, a foundation, or a summary.

2. Methodology

This section depicted how the study was done, including the study respondents or research respondents, materials/instruments, design, and procedures, as applicable.

2.1 Research Respondents

The research was conducted in the Davao Region, commonly known as Region XI, located in the southern Philippines within the Mindanao province. This region is composed of five provinces: Davao Oriental, Davao de Oro, Davao del Norte, Davao del Sur, and Davao Occidental. Each province contains three cities that are classified as component cities, along with an additional three cities. These include Panabo City, Island Garden City of Samal, and Davao de Oro, alongside Tagum City, Digos City, and Mati City from Davao Occidental. Public school teachers from the eleven divisions within Region XI were involved in the research. Survey questionnaires were distributed across the designated locations mentioned.

Since change management is indispensable and its importance in field education, particularly in providing the optimum learning experience for students and staff support. This study may serve as the foundation for training programs in skill development, adaptation, education, and teacher motivation and involvement in the field.

A scientific process was employed in selecting and determining the number of study respondents. Approximately 400 public elementary school teachers working in various DepEd Region XI schools will be surveyed for this study to represent the 25,969 (PPRD, DepEd Region XI) active elementary teachers currently employed in the region. The distribution of elementary teachers by division will be as follows: Davao City (7,197 teachers), Mati City (867 teachers), Tagum City (1,146 teachers), Panabo City (884 teachers), Island Garden City of Samal (598 teachers), Digos City (876 teachers), Davao del Norte (2,673 teachers), Davao de Oro (4,106 teachers), Davao del Sur (2,641 teachers), Davao Oriental (2,829 teachers), and Davao Occidental (2,152 teachers). A stratified random sampling method was employed to determine the number of participants from each division (Bisht, 2023) to guarantee representation from all divisions.

The researcher aimed to follow the essential rules for determining the ideal number of participants using www.raosoft.com, as well as the standards for Structural Equation Modeling (Savalei, 2021), which recommend a sample size ranging from 200 to 400 (Smith & Dawber, 2019). Distribution for city division will be as follows: Davao City (111 teachers, 28%), Tagum City (18 teachers, 4%), Panabo City (14 teachers, 3%), Mati City (13 teachers, 3%), Island Garden City of Samal (9 teachers, 2%), Digos City (13 teachers, 3%). Also, the division within the province will again be distributed as follows: Davao del Norte (41 teachers, 10%), Davao de Oro (63 teachers, 16%), Davao del Sur (41 teachers, 10%), Davao Oriental (44 teachers, 11%), and Davao Occidental (33 teachers, 8%).

The study involved 400 elementary school teachers. When ranked from the most to the least represented position, the largest group consisted of Teacher I with 155 teachers (38.75%), followed by Teacher III with 100 teachers (25.00%) and Teacher II with 84 teachers (21.00%). A smaller proportion belonged to the master teacher ranks, including Master Teacher I with 47 teachers (11.75%), Master Teacher II with 9 teachers (2.25%), and the least represented group, Master Teacher III, with 5 teachers (1.25%). In terms of length of service, the category with the highest number of respondents was those who had been teaching for 7–10 years, accounting for 91 teachers (22.75%). This was followed by those with 1–3 years of service at 64 teachers (16.00%), 11–15 years with 59 teachers (14.75%), and 4–6 years with 58 teachers (14.50%). Teachers who had served 16–20 years numbered 44 (11.00%), while those with 30 years or more totaled 29 (7.25%). The categories with the fewest respondents were those with 26–29 years of service at 28 teachers (7.00%) and 21–25 years with 27 teachers (6.75%).

Further, the researcher considered the inclusion and exclusion criteria in selecting the study respondents. The teacher respondents must be regular teachers from public elementary schools in Region XI, with Plantilla numbers registered with the Department of Education. Teachers who were willing to participate and had obtained permission from their school heads to take part in the survey were included in the study. Only teachers who voluntarily agreed to the informed consent were included in the survey, while those who explicitly declined were excluded. Educators from private institutions

were not part of this research. The researcher also considered teachers who decided to withdraw or disengage during the distribution of the survey questionnaires. The researcher personally administered the survey questionnaires to the respondents. Data gathering took place from March to April 2025.

2.2 Research Instruments

This research adopted a quantitative, descriptive-correlational methodology and employed structural equation modeling techniques. Quantitative research relies on mathematical frameworks and statistical evaluations to analyze data, yielding objective numerical results. It aims to determine the causes and processes that drive shifts in different phenomena (Aspers & Corte, 2019). The objective of this study was to develop an optimal model for change management in public education institutions.

More specifically, the research used a descriptive-correlational method. This type of study aims to explain the relationships between variables without showing causal links (Creswell & Creswell, 2018). Descriptive pertains to the measurement of change management in public schools, attitudes toward technology, quality of work life, emotional intelligence, and transformational leadership. However, this research looks at the connection between exogenous and endogenous variables.

Five tools were used in this research to tackle the research issue. The investigation relied on primary data to gather information, incorporating five elements: change management in public schools, attitudes toward technology, quality of work life, emotional intelligence, and transformational leadership. The questions included in the survey for the study were sourced from multiple pertinent research materials. The questions were modified to better align with the current circumstances and related setting.

The instrument was approved by five internal experts and one external expert to ensure strong reliability and credibility. After this validation, we conducted pilot testing. We assessed the validity of the surveys using Cronbach's alpha. According to Adeniran (2019), as the Cronbach's alpha coefficient nears 1.0, the internal consistency of the scale items improves. Bonett and Wright (2015) pointed out that the acceptability of a reliability value varies based on the specific context under review. It is also crucial to consider the reliability value for the entire population rather than only that of the sample.

The recommendation from George and Mallery (2003) states that a result of 0.9 or higher is excellent. A result of 0.8 or higher is good. A score of 0.7 or higher is acceptable. A result of 0.6 or higher is questionable. A score of 0.5 or higher is poor. Any score below 0.5 is unacceptable. The Cronbach alpha values for this survey instrument were 0.938 for the main variable and an average of 0.943 for the four other variables. This shows that the research tools are valid and reliable. A panel of reviewers approved the validation of the four sets of questionnaires. The overall rating for the instruments' construct validity was 0.942, showing a very strong assessment of the tools. The final version will be

updated to include the changes, comments, and suggestions from the experts before it is used.

The change management questionnaire was modified based on the research conducted by Hye *et al.* (2020). It includes three main indicators, specifically: trust, technology adoption, and facilitating conditions. The survey on attitudes toward technology will be changed according to the research by Akbaba Altun from 2001. The tool had nine indicators, namely: acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, trusting technology, technology and pessimism, and technology use. The questionnaire on quality of work life will be derived from the research conducted by Swamy *et al.* (2015). The tool had nine indicators, namely: work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources. The questionnaire on emotional intelligence will be adapted from the study of Fenanlampir *et al.* (2021). It comprises the following indicators: recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships. Finally, the survey about transformational leadership has been changed based on the study by Moolenaar *et al.* (2010). The instrument has our domains, namely: vision building, innovative climate, intellectual stimulation and individualized consideration.

The scale used to assess the means of change management in public schools, attitudes towards technology, quality of work life, emotional intelligence, and transformational leadership is categorized as follows: a range of 4.20 - 5.00 is characterized as very high and interpreted as consistently evident; 3.40 - 4.19 is classified as high and understood as frequently evident; 2.60 - 3.39 is designated as moderate and considered occasionally evident; 1.80 - 2.59 is referred to as low and interpreted as rarely evident; and finally, a range of 1.00 - 1.79 is defined as very low and described as never evident in public schools.

2.3 Design and Procedure

This research used a quantitative, descriptive-correlational approach and applied structural equation modeling techniques. Quantitative research evaluates data through mathematical models and statistical analyses, resulting in objective numerical results. Quantitative research identified the causes and mechanisms underlying phenomenon changes (Aspers & Corte, 2019). The goal of this research was to develop the best-fit model of change management in public schools. A suitable model was developed using Structural Equation Modeling (SEM). This method was used to explore proposed relationships. The process commenced with a theoretical model and was subsequently adjusted to formulate a model that effectively mirrors the data. Structural equation modeling is a statistical technique frequently used in social research (Memon, Ramayah, & Cheah, 2021). Although structural equation modeling has similarities to linear

regression analysis, it offers several benefits. Here are some key features of structural equation modeling: this method identifies latent structures that cannot be directly observed while also considering potential measurement errors in the observed variables. It is very useful for examining complex models with many variables, as it shows both direct and indirect relationships among these variables (Kang & Ahn, 2021). It provides a significant advantage in visualizing and analyzing complex models. It is also often used to assess graduate theses and academic studies (Civelek, 2018).

To find the best model, we used the following indices with their corresponding criteria (Hair, Black, Babin & Anderson, 2020). During the selection process, it is important for all included indices to stay within their allowed limits.

Index	Criterion
Chi-Square / Degrees of Freedom	$0 < \text{value} < 2$
P-value	$> .05$
Normed Fit Index (NFI)	$> .95$
Tucker-Lewis Index (TLI)	$> .95$
Comparative Fit Index (CFI)	$> .95$
Goodness of Fit Index (GFI)	$> .95$
Root Mean Square of Error Approximation (RMSEA)	$< .05$
P of Close Fit (Pclose)	$> .05$

The ratio of the Chi-Square Value to the Degrees of Freedom usually falls between 0 and 2 (Kline, 1998; Marsh & Hocevar, 1985), and the p-Value should be greater than 0.05 (Joreskog & Surbom, 1996). The Root Mean Square Error Approximation should stay below 0.05 (MacCallum, Brown & Sugawara, 1996). The P-close value needs to be above 0.05. Additionally, all other metrics must exceed a threshold of 0.95. This includes the Normed Fit Index, Tucker-Lewis Index, Comparative Fit Index (West, Mentzer & Stanovich, 2012; Fan, Thompson & Wang, 1999), and the Goodness of Fit Index (Tabachnick & Fidell, 2007).

Before starting the information collection for this research, approval from the Ethics Review Committee of the University of Mindanao was obtained in February 2025. The survey questionnaires were finalized between February 2025 and March 2025. A letter of request, signed by the dean, was sent to the DepEd Regional Director. This official letter was also included with correspondence to the Superintendents in the eleven DepEd divisions of Region XI. A timeline was established for handing out and collecting questionnaires, scheduled from March 2025 to April 2025. Specifically, between March 2025 and April 2025, the researcher personally administered the questionnaires in the division schools throughout the region. The gathered information was carefully organized, reviewed, and understood to ensure privacy. The information was reviewed and understood with appropriate statistical methods.

The Mean served as the basis for determining the level of change management in public schools, attitudes toward technology, quality of work life, emotional intelligence, and transformational leadership. The Pearson r, or Pearson Product-Moment Correlation,

is used for joint data that are normally distributed and follow a normal bivariate distribution (Schober, Boer & Schwarte, 2018). In this study, it was used to evaluate the relationship between the exogenous and endogenous variables. We then employed Structural Equation Modeling with the Maximum Likelihood method. This technique combines elements of multiple regression and factor analysis. It helps estimate several linked dependency relationships at the same time (Thakkar & Thakkar, 2020). We used it to assess the proposed model and find the best model for change management in public schools.

The focus on ethical behavior has increased in response to society's demand for more accountability. Along with the important task of choosing suitable research methods, the ethical considerations in the research process, as outlined in UMERC Form 2.2, are very important. As a result, this paper went through an ethics review by a panel of experts from the University of Mindanao Ethics Review Committee (UMERC) and was found to meet the university's basic standards for research ethics before it was carried out. This research received a certificate for approval and compliance with the UMERC Protocol Number 2025-006.

3. Results and Discussion

This section presents and discusses the data analysis and findings on the professional learning community concerning change management in public schools, attitudes toward technology, quality of work life, emotional intelligence, and transformational leadership. It provides an inclusive explanation of the results, emphasizing key patterns, relationships, and insights from statistical analyses to address the study's research objectives.

3.1 Level of Attitude towards Technology

Depicted in Table 1 is the level of attitude towards technology in terms of acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, trusting technology, technology and pessimism, and technology use. The average score was 4.54, with a standard deviation of 0.412. This shows a very high level of response. Attitudes toward technology were clearly present. Among the nine factors related to technology attitudes, the acceptance of technology had the highest average score of 4.76, with a standard deviation of 0.385, which is considered very high. On the other hand, the score for technology and pessimism was the lowest at 4.30, with a standard deviation of 0.672, but it still falls within the very high category.

Table 1: Level of Attitude towards Technology

Indicators	SD	Mean	D.E.
Acceptance of Technology	0.38	4.76	Very High
Technology and Development	0.49	4.54	Very High
Pursuing Technology	0.59	4.43	Very High
Technology and Administration	0.40	4.75	Very High
Technology Phobia	0.49	4.52	Very High
Internet Technology	0.46	4.65	Very High
Trusting Technology	0.61	4.33	Very High
Technology and Pessimism	0.67	4.30	Very High
Technology Use	0.52	4.61	Very High
Overall	0.41	4.54	Very High

These results imply that the teachers supported the schools where technology is implemented, believed that instructional technology increases learning, and that the use of technology in teaching will be beneficial. Moreover, they felt happy having conversations with their colleagues about technology. They thought that technology would increase the interaction among people. They liked searching the internet for research, and that developments in technology will broaden their professional roles at school. While encouraging people to benefit from technology. They also believe that technology is under our control.

The very high level of attitude towards technology of the teachers showed a significant improvement compared to the study results presented by Clipa, Delibas, and Mățã (2023). They exhibited a moderate level of attitude towards technology among teachers. However, aligned with Boonmoh *et al.* (2021), the teachers are in favor of the schools that employ technology, think that instructional technology improves learning, and that using technology in the classroom will be advantageous (Tuma, 2021). Additionally, they enjoy discussing technology with their coworkers. They believe that technology will improve human connection. They enjoy conducting research online and believe that advancements in technology will expand their professional responsibilities at school (Zhang, 2022) while urging people to take advantage of technology. They also think that we have control over technology (Yılmaz, 2021).

3.2 Level of Quality of Work Life

Depicted in Table 2 is the level of quality of work life in terms of work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources. The overall mean score was 4.54, with a standard deviation of 0.45. This indicates a very high level. It suggests that school culture is consistently observable. Among the quality of work life indicators, the aspect of relation and cooperation received the highest mean score of 4.65, which is classified as very high, with a standard deviation of 0.47. In contrast, autonomy of work recorded the lowest mean score of 4.47 and a standard deviation of 0.57, although it is still considered very high.

The very high descriptive levels across all indicators of quality of work life indicated that teachers felt that the schoolwork environment is good and highly motivating. They were involved in making decisions that affect their work and having very good relationship with their school head. Further, they are offered sufficient training opportunities to perform their job competently. They felt that they were given adequate and fair compensation for the work they did and provided by the school during travel, with good transportation allowances. They sensed comfort and were satisfied with the job that let them use their skills and abilities while being provided with resources to facilitate their performance.

Table 2: Level of Quality of Work Life

Indicators	SD	Mean	D.E.
Work Environment	0.49	4.54	Very High
Organization, culture and climate	0.45	4.63	Very High
Relation and co-operation	0.47	4.65	Very High
Training and development	0.54	4.56	Very High
Compensation and Rewards	0.57	4.50	Very High
Facilities	0.60	4.45	Very High
Job satisfaction and Job security	0.52	4.58	Very High
Autonomy of Work	0.57	4.47	Very High
Adequacy of Resources	0.54	4.48	Very High
Overall	0.45	4.54	Very High

The very high level of quality work life of teachers in public schools is partly similar to the findings that teachers in Manila, Philippines, were having a high level of quality work life by Panuelos *et al.* (2025), together with the same results of Eledio *et al.* (2024) in Davao del Norte. Moreover, it backed up the idea that teachers think the learning environment is good and very motivating (Kilag *et al.*, 2023). They got along well with their school head and were involved in decisions that influenced their work (Laurenio Jr. *et al.*, 2023). They also get enough opportunity to learn how to carry out their professions successfully. They reported that the school gave them sufficient travel allowances and paid them properly for the work they did. They were happy and comfortable in their roles, which let them use their skills and abilities and gave them the tools to assist them in doing their jobs (Beardsley *et al.*, 2021).

3.3 Level of Emotional Intelligence

Illustrated in Table 3 is the level of emotional intelligence in terms of recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships. It got an overall mean score of 4.57, which is very high. This means that the level of emotional intelligence is always evident. All measures of emotional intelligence were reported to be significantly very high, with a mean ranging from 4.52 to 4.66 and an average standard deviation of 0.42.

Table 3: Level of Emotional Intelligence

Indicators	SD	Mean	D.E.
Recognizing your Own Emotions	0.54	4.52	Very High
Managing Emotions	0.55	4.43	Very High
Motivating Yourself	0.47	4.61	Very High
Recognizing other People's Emotions	0.49	4.64	Very High
Building Relationships	0.44	4.66	Very High
Overall	0.42	4.57	Very High

The teachers demonstrated very high descriptive scores across all emotional intelligence domains. These results implied that teachers recognized and felt self-emotions, understood the causes of feelings that occurred and were able to express anger appropriately. They manifested aggressive behavior that can damage themselves and others. The teachers exhibit optimism in dealing with problems without affecting their focus on the given task. They were able to accept other people's points of view with empathy or sensitivity toward others. Hence, they understood the importance of building relationships with others while resolving conflicts within themselves.

These shown characteristics were consonant with the statement that Teachers with very high emotional intelligence can identify and sense their own emotions, comprehend the reasons behind their sentiments, and appropriately communicate their anger (Kovalchuk *et al.*, 2022). According to Mérida-López *et al.* (2022), they displayed control over aggressive, domineering behavior that could harm both themselves and other people. When faced with challenges, the teachers show positivity without losing sight of the objective at hand. They had the capacity to be sensitive to or empathetic about the opinions of others. They thus recognized the value of fostering relationships with others while settling internal difficulties (Wang, 2023). Subsequently, the very high level of emotional intelligence of public-school teachers aligns with the findings that the Filipino teachers in Cebu, Philippines, exhibit high emotional intelligence by Go, Golbin Jr, Velos, and Bate (2020), with similar findings by Escarlos and Santillan (2023) in Maramag District.

3.4 Level of Transformational Leadership

Illustrated in Table 4 is the level of transformational leadership of school heads in terms of vision building, intellectual stimulation, innovative climate, and individualized consideration. It obtained an overall mean score of 4.66, which is very high. This means that the level of transformational leadership of school heads is always evident. All indicators of transformational leadership of school heads were described as very high, with a means ranging from 4.60 to 4.70 and an average standard deviation of 0.43.

The very high descriptive levels of transformational leadership of school heads imply that the school heads always referred openly to our school's aims during decision-making procedures. They clearly explained how the school's vision links to various initiatives, teamwork projects, and government efforts. They tried new ideas willingly,

learned, and emerged with new ideas continuously. They motivated the teachers to look for and discuss new information and always learn and come up with new ideas. Lastly, they were willing to take chances to improve the schools.

Table 4: Level of Achievement Motivation

Indicators	SD	Mean	D.E.
Vision Building	0.49	4.60	Very High
Innovative Climate	0.47	4.67	Very High
Intellectual Stimulation	0.46	4.67	Very High
Individualized Consideration	0.44	4.70	Very High
Overall	0.43	4.66	Very High

The very high level of transformational leadership of school heads aligns with the findings by Esogon and Gumban (2024) in Bacolod, Philippines. Similarly, very high-level transformational leadership of school heads was established in the study findings of Buenvenida and Ramos (2019). The study findings also supported the idea that transformational leaders frequently and honestly referenced our school's goals when making decisions (Crowley, 2022). They explained in detail how the school's vision relates to different programs, teamwork, and governmental endeavors. They studied, experimented voluntarily, and kept coming up with new ideas (Umair *et al.*, 2024). They encouraged the teachers to always learn and think of new things, as well as to seek and share new material (Zainal *et al.*, 2021). Finally, according to Myers *et al.* (2023), they were prepared to take risks to improve the schools.

3.5 Level of Change Management

Displayed in Table 5 is the level of change management in terms of trust, technology adoption, and facilitating conditions. It achieved an overall mean score of 4.54, which shows a very high value, with a standard deviation of 0.49. This suggests that the presence of change management attributes is clearly noticeable. All three indicators related to change management received very high scores, with mean scores ranging from 4.49 to 4.56 and an average standard deviation of 0.44.

Table 5: Level of Change Management

Indicators	SD	Mean	D.E.
Trust	0.54	4.56	Very High
Technology Adoption	0.52	4.56	Very High
Facilitating Conditions	0.55	4.49	Very High
Overall	0.49	4.54	Very High

The very high descriptive levels of change management suggest that teachers always believe that it is trustworthy. They felt assured that change management can fulfill its task and that legal and technological structures adequately protect them from problems with change management. Further, they believed that stakeholders need proper

adaptability and proper technology knowledge in change management. They feel the resources necessary to use change management were present. They found that change management was compatible with the other technologies they were using. Finally, get help from others when they have difficulties using change management.

The study results confirmed the ideas highlighted by Arbaein *et al.* (2024), indicating that teachers' trust and belief in change management are key factors determining its effectiveness. Teachers were confident that change management could accomplish its goals and that they would be sufficiently shielded from change management issues by technology and regulatory frameworks (Chan, 2023). They believed there are the resources needed to implement change management. They discovered that change management worked with the tools they were using. If someone is having trouble with change management, they can ask for assistance (Bagga *et al.*, 2023). They also said that stakeholders needed to be properly flexible when it came to change management (Franklin, 2021).

3.6 Significance on the Relationship between Levels of Attitude Towards Technology and Change Management

Displayed in Table 6 are the test results of the relationship between attitude towards technology and change management of public schools in the Davao Region. As indicated in the hypothesis, the relationship was tested at the .05 significance level. The overall r-value of .623 with a p-value of less than .05. This result suggests a significant relationship between attitude towards technology and change management of public schools in the Davao Region; therefore, the null hypothesis was rejected. The correlation coefficient of .623 further suggests that there is a moderate relationship between the two variables.

Furthermore, the findings shown that all indicators of attitude towards technology namely: acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, trusting technology, technology and pessimism, and technology use manifested significant relationships with the change management with its domains, trust, technology adoption, and facilitating conditions with r-values ranging .435 to .531 with all p-values less than 0.05, hence significant. In other hand, when indicators of change were correlated to the attitude towards technology, the r-values ranged from .552 to .588 with p values less than 0.05, therefore significant.

Table 6: Significance on the Relationship between
 Levels of Attitude towards Technology and Change Management

Attitude Towards Technology	Change Management			
	Trust	Technology Adoption	Facilitating Conditions	Overall
Acceptance of Technology	.382* (0.000)	.399* (0.000)	.417* (0.000)	.435* (0.000)
Technology and Development	.435* (0.000)	.489* (0.000)	.470* (0.000)	.506* (0.000)
Pursuing Technology	.430* (0.000)	.491* (0.000)	.499* (0.000)	.516* (0.000)
Technology and Administration	.462* (0.000)	.480* (0.000)	.441* (0.000)	.502* (0.000)
Technology Phobia	.476* (0.000)	.495* (0.000)	.443* (0.000)	.514* (0.000)
Internet Technology	.420* (0.000)	.435* (0.000)	.406* (0.000)	.458* (0.000)
Trusting Technology	.439* (0.000)	.445* (0.000)	.473* (0.000)	.493* (0.000)
Technology and Pessimism	.481* (0.000)	.473* (0.000)	.507* (0.000)	.531* (0.000)
Technology Use	.401* (0.000)	.490* (0.000)	.427* (0.000)	.482* (0.000)
Overall	.552* (0.000)	.588* (0.000)	.576* (0.000)	.623* (0.000)

*Significant at 0.05 significance level.

This result reinforced the study results of Sinkeaw (2003), who emphasized that change management shows a positive correlation with employees' attitudes within the information technology system environment. It also validated the study results published by Brown (2009) that the attitude towards technology is associated with the readiness to change management. Relatedly, Negova (2011) highlighted that technology acceptance contributed to a larger change management field.

3.7 Significance on the Relationship between Levels of Quality of Work Life and Change Management

Displayed in Table 7 are the test results of the relationship between quality of work life and change management of public schools in the Davao Region. The overall r-value is .713 with a p-value of less than .05. This result implies that there is a significant correlation between quality of work life and change management. It further suggests a strong relationship between the quality of work life and change management.

Subsequently, when indicators of quality of work life, work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources were correlated to change management, they displayed an r-value extending from .505 to .641 with p-values less than 0.05. While the domains of

change management, trust, technology adoption, and facilitating conditions correlated to the overall quality of work life shown, they had r-values of .623 to .696 and indicated p-values less than 0.05, significant. Hence, the null hypothesis was rejected.

Table 7: Significance on the Relationship between Levels of Quality of Work Life and Change Management

Quality of Work Life	Change Management			
	Trust	Technology Adoption	Facilitating Conditions	Overall
Work Environment	.524* (0.000)	.563* (0.000)	.591* (0.000)	.610* (0.000)
Organization, culture and climate	.539* (0.000)	.583* (0.000)	.594* (0.000)	.624* (0.000)
Relation and co-operation	.450* (0.000)	.456* (0.000)	.482* (0.000)	.505* (0.000)
Training and development	.534* (0.000)	.571* (0.000)	.593* (0.000)	.617* (0.000)
Compensation and Rewards	.537* (0.000)	.531* (0.000)	.611* (0.000)	.611* (0.000)
Facilities	.570* (0.000)	.566* (0.000)	.621* (0.000)	.639* (0.000)
Job satisfaction and Job security	.512* (0.000)	.498* (0.000)	.573* (0.000)	.576* (0.000)
Autonomy of Work	.559* (0.000)	.562* (0.000)	.641* (0.000)	.641* (0.000)
Adequacy of Resources	.552* (0.000)	.584* (0.000)	.627* (0.000)	.641* (0.000)
Overall	.623* (0.000)	.640* (0.000)	.696* (0.000)	.713* (0.000)

*Significant at 0.05 significance level.

This result reinforced the study results of Zare and Janani (2015), who found a positive and significant correlation between quality of work life and change management of managers of sports clubs of the city of Tabriz. Correspondingly, in Vietnam, Halim and Kovara (2024) found out that employees' quality of work life and change management were correlated.

3.8 Significance on the Relationship between Levels of Emotional Intelligence and Change Management

Displayed in Table 8 are the test results of the relationship between emotional intelligence and change management of public schools in the Davao Region. The result showed an overall r-value of .711 with a p-value of less than .05. This suggests that there is a significant relationship between emotional intelligence and change management of public schools.

Subsequently, when indicators of emotional intelligence, recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships were correlated to change management, all indicated a relationship by manifesting r-values ranging from .583 to .628 with p-values less than 0.05. Moreover, the domains of change management, namely: trust, technology adoption, and facilitating conditions, the findings show that all indicators manifested a significant relationship with emotional intelligence, with gained r-values ranging from .634 to .669, and p-values were less than .05. Therefore, the null hypothesis was rejected.

Table 8: Significance on the Relationship between Levels of Emotional Intelligence and Change Management

Emotional Intelligence	Change Management			
	Trust	Technology Adoption	Facilitating Conditions	Overall
Recognizing your Own Emotions	.520* (0.000)	.508* (0.000)	.573* (0.000)	.583* (0.000)
Managing Emotions	.551* (0.000)	.512* (0.000)	.604* (0.000)	.607* (0.000)
Motivating Yourself	.594* (0.000)	.580* (0.000)	.553* (0.000)	.628* (0.000)
Recognizing other People's Emotions	.542* (0.000)	.548* (0.000)	.543* (0.000)	.593* (0.000)
Building Relationships	.561* (0.000)	.544* (0.000)	.554* (0.000)	.603* (0.000)
Overall	.652* (0.000)	.634* (0.000)	.669* (0.000)	.711* (0.000)

*Significant at 0.05 significance level.

This result strengthened the study findings of Ugoani (2017) that emotional intelligence has a strong positive relationship with successful change management in the Nigerian banking industry. Also, Mderis *et al.* (2024) found a strong positive relationship between emotional intelligence and readiness for change among nurses. Moreover, the result highlighted the contention that correlation exists between managing emotions and managing change in the organization (Singh *et al.*, 2022).

3.9 Significance on the Relationship between Levels of Transformational Leadership and Change Management

Displayed in Table 9 are the test results of the relationship between transformational leadership and change management of public schools in the Davao Region. As indicated in the hypothesis, the relationship was tested at a .05 level of significance. The overall r-value of .679 with a p-value of less than .05 showed that the null hypothesis was rejected. This result suggests a significant relationship between transformational leadership and change management of public schools in the Davao Region.

In particular, the results show that every measure of transformational leadership, Vision Building, Innovative Climate, Intellectual Stimulation, Individualized Consideration have a significant relationship with the change management, having r-values extending from .588 to .648, with all p-values less than 0.05. Also, when the domains of change management, trust, technology adoption, and facilitating conditions are shown, r-values extending .611 to .632 with indicated p-values less than .05. Therefore, significant.

Table 9: Significance on the Relationship between
 Levels of Transformational Leadership and Change Management

Transformational Leadership	Change Management			
	Trust	Technology Adoption	Facilitating Conditions	Overall
Vision Building	.559* (0.000)	.592* (0.000)	.595* (0.000)	.635* (0.000)
Innovative Climate	.581* (0.000)	.582* (0.000)	.557* (0.000)	.625* (0.000)
Intellectual Stimulation	.606* (0.000)	.599* (0.000)	.577* (0.000)	.648* (0.000)
Individualized Consideration	.551* (0.000)	.553* (0.000)	.514* (0.000)	.588* (0.000)
Overall	.624* (0.000)	.632* (0.000)	.611* (0.000)	.679* (0.000)

*Significant at 0.05 significance level.

This result supported the study findings of a significant positive correlation between transformational leadership and Change management by Kung'u (2019). Similarly, Alqatawenh (2018) found out that the dimensions of the transformational leadership, Idealized Influence, Inspirational motivation, Intellectual stimulation, Empowerment and change management were linked together. This study also consonance to Dickson *et al.* (2019) findings that 51.1% of the relationship was explained by the four variables, namely idealized influence, inspirational motivation, intellectual stimulation and individual consideration, the dependent variable, change management.

3.10 Best-Fit Structural Model of Change Management

This section analyzes the interconnections among the variables in the research. Three models have been constructed to identify the optimal approach for change management within public schools. The models were evaluated using the specified fit indices, which determined their acceptance or rejection.

A STRUCTURAL EQUATION MODEL ON CHANGE MANAGEMENT IN PUBLIC SCHOOLS AS INFLUENCED BY ATTITUDES TOWARDS TECHNOLOGY, QUALITY OF WORK LIFE, EMOTIONAL INTELLIGENCE, AND TRANSFORMATIONAL LEADERSHIP OF SCHOOL HEADS

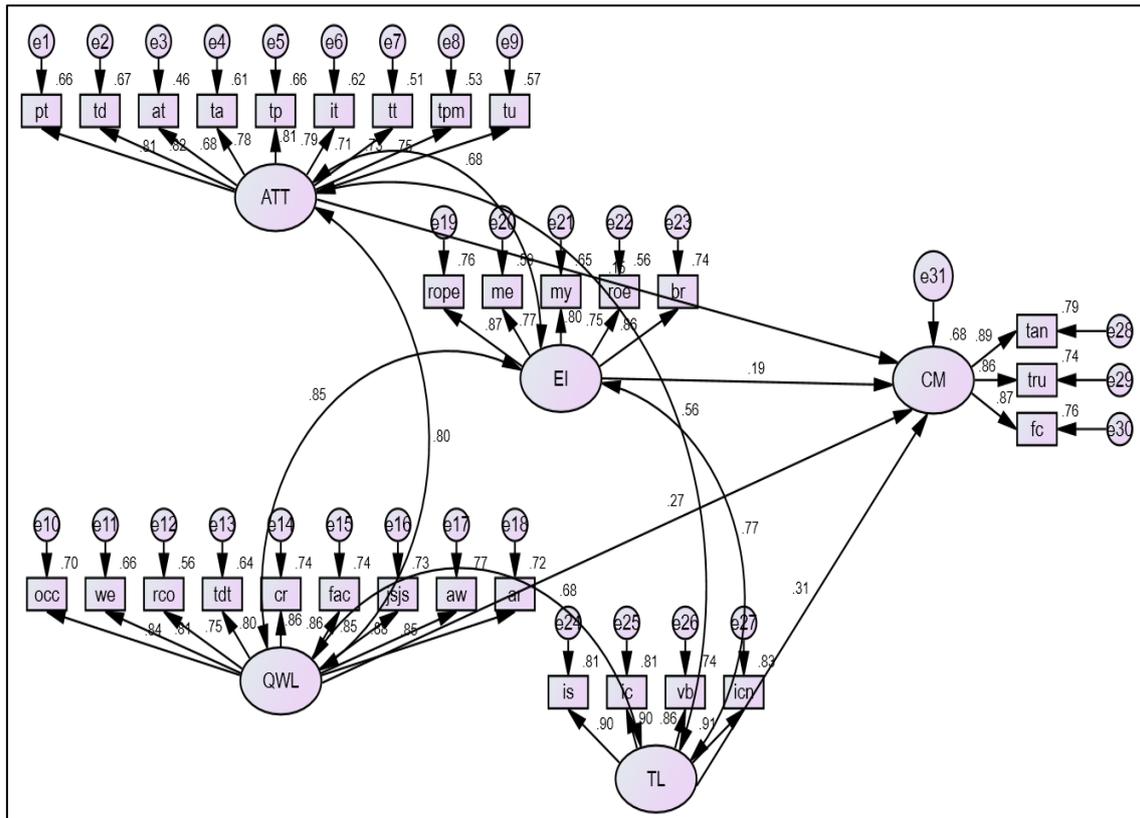


Figure 2: Generated Model 1

Figure 2. Structural Model 1 in Standardized Solution

- | | |
|---|--|
| <p>Legend: at – Acceptance of Technology
td – Technology and Development
pt – Pursuing Technology
ta – Technology and Administration
tp – Technology Phobia
it – Internet Technology
tt – Trusting Technology
tpm – Technology and Pessimism
tu – Technology Use
ATT – Attitudes Towards Technology</p> <p>we – Work Environment
occ – Organization, culture and climate
rco – Relation and Co-operation
tdt- Training and Development
cr – Compensation and Rewards
fac – Facilities
jsjs – Job Satisfaction and Job Security
aw – Autonomy of Work
ar – Adequacy of Resources
QWL – Quality of Work Life</p> | <p>roe – Recognizing your own emotions
me – Managing Emotions
my – Motivating Yourself
rope – Recognizing other People's Emotions
br – Building Relationships
EI – Emotional Intelligence</p> <p>vb – Vision Building
ic – Innovative Climate
is – Intellectual Stimulation
icp – Individualized Consideration
TL – Transformational Leadership</p> <p>tru – Trust
tan – Technology Adoption
fc – Facilitating Conditions
CM – Change Management</p> |
|---|--|

In Figure 2 the generated structural model 1 is shown. It shows the interrelationships of the exogenous variables: attitude towards technology measured by acceptance of technology, technology and development, pursuing technology, technology and administration, technology phobia, internet technology, rusting technology, technology and pessimism, and technology use; quality work life with its domains, work environment, organization culture and climate, relation and co-operation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources; emotional intelligence with its

indicators, recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships. and transformational leadership with its indicators, namely: vision building, innovative climate, intellectual stimulation, and individualized consideration; the causal relationship involving the change management variable was looked at through its three observed areas: trust, technology adoption, and facilitating conditions. None of the indices met the allowable thresholds shown in Table 10. So, this model does not fit well.

Table 10: Goodness of Fit Measures of Structural Model 1

Index	Criterion	Model Fit Value
P-Close	> 0.05	.000
CMIN/DF	0 < value < 2	3.776
P-value	> 0.05	.000
GFI	> 0.95	.779
CFI	> 0.95	.902
NFI	> 0.95	.871
TLI	> 0.95	.892
RMSEA	< 0.05	.083

Legend:

- CMIN/DF - Chi-Square/Degrees of Freedom
- NFI - Normed Fit Index
- TLI - Tucker-Lewis Index
- CFI - Comparative Fit Index
- GFI - Goodness of Fit Index
- RMSEA - Root Means Square of Error Approximation
- Pclose - P of Close Fit
- P-value - Probability Level

Shown in Figure 3, the generated model 2 exhibited the interrelationships of the exogenous variables, where several indicators with low values were eliminated. The attitude towards technology is measured by the remaining five domains, to wit, pursuing technology, technology and administration, technology phobia, trusting technology, technology and pessimism, and technology use.

The nine indicators of quality work life were reduced to five specifically: organization, culture and climate, relation and co-operation, compensation and rewards, job satisfaction and job security, and adequacy of resources. The emotional intelligence was maintaining its domains explicitly: recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships. Similarly, transformational leadership with its sustained indicators, namely: vision building, innovative climate, intellectual stimulation, and individualized consideration to show their relationship with the endogenous variable, which was the change management, with its maintained three observed domains: trust, technology adoption, and facilitating conditions.

A STRUCTURAL EQUATION MODEL ON CHANGE MANAGEMENT IN PUBLIC SCHOOLS AS INFLUENCED BY ATTITUDES TOWARDS TECHNOLOGY, QUALITY OF WORK LIFE, EMOTIONAL INTELLIGENCE, AND TRANSFORMATIONAL LEADERSHIP OF SCHOOL HEADS

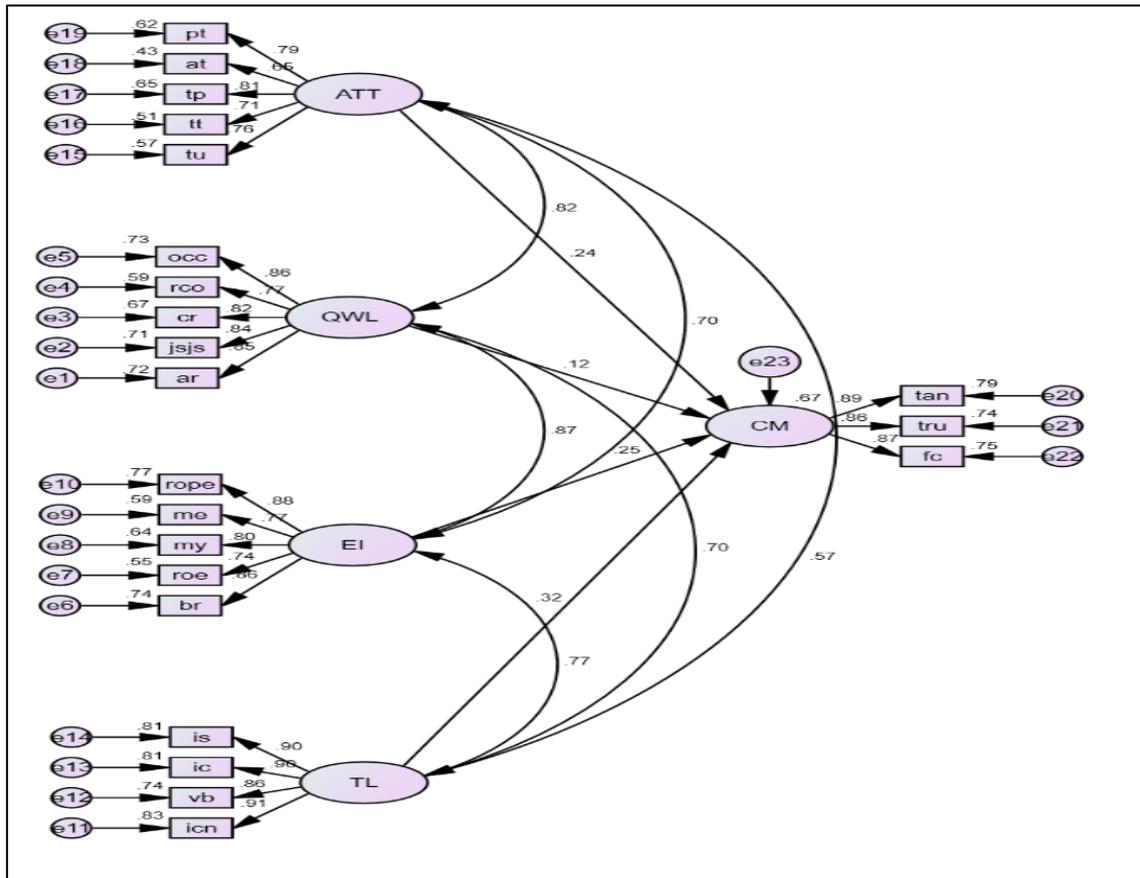


Figure 3: Generated Model 2

Figure 3: Structural Model 2 in Standardized Solution

Legend: at – Acceptance of Technology	roe – Recognizing your own emotions
td – Technology and Development	me – Managing Emotions
pt – Pursuing Technology	my – Motivating Yourself
ta – Technology and Administration	rope – Recognizing other People's Emotions
tp – Technology Phobia	br – Building Relationships
it – Internet Technology	EI – Emotional Intelligence
tt – Trusting Technology	
tpm – Technology and Pessimism	vb – Vision Building
tu – Technology Use	ic – Innovative Climate
ATT – Attitudes Towards Technology	is – Intellectual Stimulation
	icn – Individualized Consideration
we – Work Environment	TL – Transformational Leadership
occ – Organization, culture and climate	
rco – Relation and Co-operation	tru – Trust
tdt – Training and Development	tan – Technology Adoption
cr – Compensation and Rewards	fc – Facilitating Conditions
fac – Facilities	CM – Change Management
jsjs – Job Satisfaction and Job Security	
aw – Autonomy of Work	
ar – Adequacy of Resources	
QWL – Quality of Work Life	

Model 2 showed a significant improvement in the indexes compared to Model 1, such as: P-Close, from .000 in model 1 stayed the same in model 2, thus poor fit; CMIN/DF, from 3.776 to 3.156, still it did not meet the criterion; P-value from .000 got same value in model 2, still poor fit, GFI, from .779 to .869, then poor fit; CFI, from .902 to .942, near but still poor fit; NFI, from .871 to .917 still did not meet the threshold, thus poor fit; TLI, from .892 to .933, not fit; and RSMEA, from .083 to .074, also poor fit. The

model has not yet met an acceptable threshold value for each criterion, as shown in Table 11. Therefore, Model 2 is still not seen as a good fit. For the model to be considered the best fit, it must satisfy every criterion.

Meanwhile, in model 2, each latent variable was measured by the remaining domains and their standardized factor loadings, which indicated the strength of the association between the variables and their indicators. The change management, with its still three measured domains, trust, technology adoption, and facilitating conditions, showed standardized factor loadings between .861 and .888. The attitude towards technology was reflected in the remaining factors: pursuing technology, technology and administration, technology phobia, trusting technology, technology and pessimism, and technology use, with loadings ranging from .654 to .804, suggesting a strong connection between attitude towards technology and its indicators.

Table 11: Goodness of Fit Measures of Structural Model 2

Index	Criterion	Model Fit Value
P-Close	> 0.05	.000
CMIN/DF	0 < value < 2	3.156
P-value	> 0.05	.000
GFI	> 0.95	.869
CFI	> 0.95	.942
NFI	> 0.95	.917
TLI	> 0.95	.933
RMSEA	< 0.05	.074

Legend:

- CMIN/DF - Chi-Square/Degrees of Freedom
- NFI - Normed Fit Index
- TLI - Tucker-Lewis Index
- CFI - Comparative Fit Index
- GFI - Goodness of Fit Index
- RMSEA - Root Means Square of Error Approximation
- Pclose - P of Close Fit
- P-value - Probability Level

Also, the quality of work life of public-school teachers' high factor loading across its reduced to five indicators, organization, culture and climate, relation and co-operation, compensation and rewards, job satisfaction and job security, and adequacy of resources ranging .768 to .857. The emotional intelligence is reliably represented by its five maintained indicators, recognizing your own emotions, managing emotions, motivating yourself, recognizing other people's emotions, and building relationships with loadings between .746 and .876. While transformational leadership exhibited internal consistency and measurement structure with its five sustained indicators, vision building, innovative climate, intellectual stimulation, and individualized consideration, with standardized loadings extending from .861 to .913.

A STRUCTURAL EQUATION MODEL ON CHANGE MANAGEMENT IN PUBLIC SCHOOLS AS INFLUENCED BY ATTITUDES TOWARDS TECHNOLOGY, QUALITY OF WORK LIFE, EMOTIONAL INTELLIGENCE, AND TRANSFORMATIONAL LEADERSHIP OF SCHOOL HEADS

Generated model 3 shown in Figure 4 shows the connections between the exogenous variables: attitude towards technology, quality of work life, emotional intelligence, transformational leadership and their causal relationship on the endogenous variable change management, which was a revised iteration of Model 1 and 2 involving the exclusion of indicators with low values.

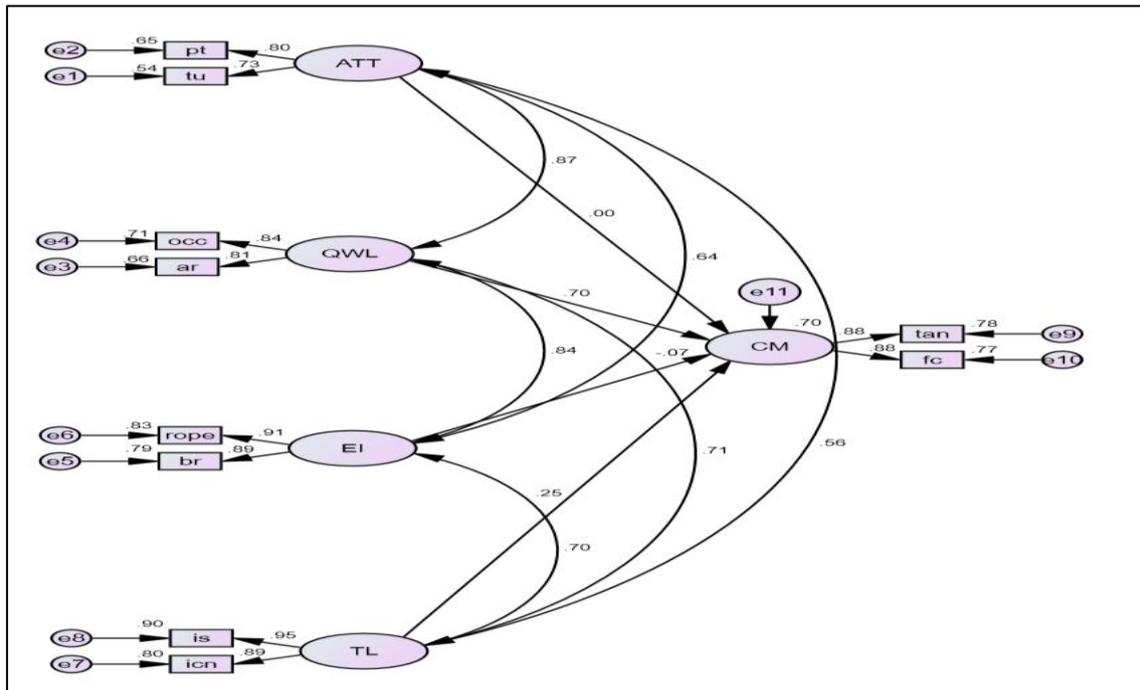


Figure 4: Structural Equation Model 3 in Standardized Solution

Legend: at – Acceptance of Technology	roe – Recognizing your own emotions
td – Technology and Development	me – Managing Emotions
pt – Pursuing Technology	my – Motivating Yourself
ta – Technology and Administration	rope – Recognizing other People's Emotions
tp – Technology Phobia	br – Building Relationships
it – Internet Technology	EI – Emotional Intelligence
tt – Trusting Technology	
tpm – Technology and Pessimism	vb – Vision Building
tu – Technology Use	ic – Innovative Climate
ATT – Attitudes Towards Technology	is – Intellectual Stimulation
	icn – Individualized Consideration
we – Work Environment	TL – Transformational Leadership
occ – Organization, culture and climate	
ro – Relation and Co-operation	tru – Trust
tdt – Training and Development	tan – Technology Adoption
cr – Compensation and Rewards	fc – Facilitating Conditions
fac – Facilities	CM – Change Management
jsis – Job Satisfaction and Job Security	
aw – Autonomy of Work	
ar – Adequacy of Resources	
QWL – Quality of Work Life	

The changes in structure showed that change management was clearly defined by its specific areas: technology adoption and facilitating conditions. In another perspective, attitude towards technology was highlighted in its domains: pursuing technology and technology use; quality of work life was also demarcated by organization, culture and climate and adequacy of resources, while emotional intelligence was determined by its retained domains, namely: recognizing other people's emotions and building

relationships. Ultimately, the domains of transformational leadership were assessed: intellectual stimulation and individualized consideration. The changes in structure showed that change management was clearly defined by its specific areas: technology adoption and facilitating conditions. In another perspective, attitude towards technology was highlighted by its domains: pursuing technology and technology use; quality work life was also demarcated by organization, culture and climate and adequacy of resources, while emotional intelligence was determined by its retained domains, namely: recognizing other people's emotions and building relationships. Ultimately, the domains of transformational leadership were assessed: intellectual stimulation, and individualized consideration.

Model 3 showed indices that clearly indicated a strong fit to the data, as every index met the required criteria. Therefore, there was no need to consider another model for evaluation, since it was already determined to be the best option among all the models assessed. As a result, the null hypothesis stating that no model is the best fit was rejected. The findings show that there is a best approach for predicting change management in public schools in the region. This approach highlights the importance of quality work life and transformational leadership as key factors in change management. Meanwhile, emotional intelligence and attitude towards technology may also influence change management through the help of the other variables.

Additionally, a noteworthy improvement among indexes were manifested in Model 3 when compared to Model 2, such as: P-Close, from .000 in model 2 to .890; CMIN/DF, from 3.156 to 1.419; P-value from .000 in model 2 to .080, GFI, from .869 to .982; CFI, from .942 to .996; NFI, from .917 to .988; TLI, from .933 to .993; and RMSEA, from .074 to .032. The model 3 met the acceptable threshold, as shown in Table 12. Therefore, Model 3 is the best-fit model.

Table 12: Goodness of Fit Measures of Structural Model 3

Index	Criterion	Model Fit Value
P-Close	> 0.05	.890
CMIN/DF	0 < value < 2	1.419
P-value	> 0.05	.080
GFI	> 0.95	.982
CFI	> 0.95	.996
NFI	> 0.95	.988
TLI	> 0.95	.993
RMSEA	< 0.05	.032

Legend:

- CMIN/DF - Chi-Square/Degrees of Freedom
- NFI - Normed Fit Index
- TLI - Tucker-Lewis Index
- CFI - Comparative Fit Index
- GFI - Goodness of Fit Index
- RMSEA - Root Means Square of Error Approximation

Pclose - P of Close Fit
 P-value - Probability Level

As shown in Table 13, the estimated regression weights for the variables in the structural equation of the modified model (Model 3) are presented. The total Chi-square value is 35.481, with 25 degrees of freedom and a probability level of .080. It indicates that among four latent variables, only Transformational Leadership (TL) and Quality of Work Life (QWL) displayed a significant impact on the endogenous variable, Change Management (CM). Between the two exogenous variables, the Quality of Work Life exhibited the strongest effect on Change Management, with a standardized regression weight (β) of .701 and a significant p-value of .014. Also, Transformational Leadership showed a moderate effect on Change Management with β equal to .255 and p-value less than .001. Meanwhile, Emotional Intelligence (EI) and Attitude Towards Technology (ATT) do not have a significant impact on change management. They need to be mediated by other factors or just not influential enough to display their direct impact.

Table 13: Estimates of Variable Regression Weights in Structural Equation Model 3

			B	S.E.	C.R.	BETA	P
CM	<---	ATT	-.002	.212	-.010	-.002	.992
CM	<---	QWL	.736	.299	2.457	.701	.014
CM	<---	EI	-.088	.159	-.551	-.074	.582
CM	<---	TL	.296	.077	3.862	.255	***
tu	<---	ATT	1.000			.735	
pt	<---	ATT	1.236	.091	13.563	.805	***
ar	<---	QWL	1.000			.813	
occ	<---	QWL	.875	.046	19.116	.843	***
br	<---	EI	1.000			.891	
rope	<---	EI	1.145	.049	23.552	.910	***
icn	<---	TL	1.000			.895	
is	<---	TL	1.103	.045	24.608	.949	***
tan	<---	CM	1.000			.881	
fc	<---	CM	1.048	.050	20.879	.877	***

Note: Chi-square = 35.481; Degrees of freedom = 25; Probability level = .080

Meanwhile, in model 3, each latent variable was measured by the remaining domains and their standardised factor loadings, which indicated the strength of the association between the variables and their indicators. The change management, with its two measured domains, technology adoption and facilitating conditions, showed standardized factor loadings of .881 and .877, respectively. The attitude towards technology was echoed by the remaining factors, pursuing technology and technology use with a loading range of .735 to .805. Likewise, the quality of work life high factor loading across is reduced to two indicators, organization, culture and climate and

adequacy of resources, with nearly similar β of .813 to .843. The emotional intelligence consistently represented by its two indicators, recognizing other people's emotions and building relationships, with loadings of .910 and .895, respectively. While transformational leadership showed inner uniformity and measurement structure with its two sustained indicators, intellectual stimulation and individualized consideration having β .895 to .949.

This result supported the study of Alanc and Kitapci (2024), which found that readiness for organizational change is positively and significantly impacted by organizational climate and creative work culture, with these two factors showing the strongest positive effects on management support and change. In the same vein, Gil *et al.* (2024) proposed that change-oriented behavior was positively impacted by quality work life dimension, the organizational climate. Organizational climate and behavior change were also partially mediated by employee learning culture and perceptions of performance reviews. This study demonstrates the significance of organizational climates in shaping workers' attitudes toward change.

This study also conformed with the findings of Hennayake and Maldeniya (2021), who revealed that the domain of transformational leadership, individual consideration has a significant positive impact on change management of the bank in Sri Lanka. Together with the result established by Alqatawenh (2018), the dimension of the transformational leadership, Intellectual stimulation, predicted change management in Jordanian Insurance companies. Hence, it is also similar to the study findings of Al-Qura'an (2015) that transformational leadership dimensions, intellectual stimulation and individualized consideration are affecting organizational change management at the structural, technological and people level.

4. Conclusion

Results revealed that the level of attitude towards technology is very high; hence, teachers' attitude towards technology is always evident. Also, the level of quality work life was very high. Consequently, quality work life is always evident in public schools. Similarly, the public-school teachers' emotional intelligence is at a very high level; thus, their attributes were always evident. Moreover, the very high level of transformational leadership of school heads was displayed; accordingly, its features were always evident. Lastly, the level of change management in the public schools was also very high. This means that the endogenous change management is always evident.

Findings revealed a correlation between attitude towards technology and change management. Additionally, a link was found between quality work life and change management. The relationship between emotional intelligence and change management was observed. Ultimately, transformational leadership of school heads was significantly correlated with change management. Additionally, the least complex model (Model 3) introduced a broad new idea. It suggested that the change management of the

endogenous variable in public schools was defined by its remaining areas, specifically: technology adoption and facilitating conditions were significantly best anchored to attitudes towards technology, described by retained domains: pursuing technology and technology use, reinforced by quality of work life with remained indicators organization, culture and climate, and adequacy of resources. Likewise, the structure was further reinforced by emotional intelligence, with retained measures: recognizing other people's emotions and building relationships, while the transformational leadership of school heads was measured by its retained indicators: intellectual stimulation and individualized consideration.

This study was consistent with Peter Blau's Social Exchange Theory (1964). Similarly, this study's results established that work climate and culture, and support bring quality work life that reciprocates no resistance to change management. Meanwhile, as transformational leadership fosters quality communication between leaders and subordinates, it allows employees to feel that their voices are carried through to any changes in management. In structure equation model 3, the influence of attitude towards technology and emotional intelligence on change management was displayed, parallel to the anchored theory. However, their regression coefficients were so low that their influence was not directly seen or may be established with the help of other variables.

Conclusively, it is recommended that the Department of Education in Southern Mindanao, Region XI, carefully evaluate the most effective model for change management in public schools identified in this study. This assessment aims to better understand the aspects of change management that could improve performance outcomes by carrying out the suggested activities listed below.

To improve change management in public schools, consider implementing the following recommendations: First, enhance Quality of Work Life through a supportive organization, culture and climate by conducting frequent team-building activities to develop team cohesion in the workplace and maximize sharing of resources. The school heads may introduce ethics-grounded recognition systems to recognize and commend positive work values manifested by teachers. Second, to promote transformational leadership of school heads through actively practising intellectual stimulation by leadership coaching and mentoring program, and individualized consideration to enhance their active listening practice through workshops. Third, reinforcing emotional Intelligence may be done with the provision of workshops on dispute resolution and response workshops to avoid conflict among employees and be sensitive in recognizing others' emotions and could possibly help in building relationships. Fourth, to foster attitudes towards technology, the Department of Education may allocate sufficient funds for procuring ICT materials and technological infrastructure, and school administrators may institutionalize school tech fairs to showcase teachers' ability in integrating technology in delivering lessons.

Finally, future researchers should validate the conclusions of this study by performing more research with a broader range of respondents or in different settings. They may also look into new factors, techniques and instruments to better inform society about the underlying causes and mechanisms of change management. This research will provide a solid foundation for creating educational policies and programs that build better institutions. It promotes effective management practices and excellent learning outcomes.

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Authors' Contributions

This work was carried out in collaboration between both authors. Author RH conceptualized the study, designed the methodology, and conducted data collection. Author EG supervised the research process, provided guidance on analysis, and contributed to manuscript refinement. Both authors jointly interpreted the findings and prepared the final manuscript. All authors have read and approved the manuscript.

Consent Statement

No identifying images or personal details of participants are included in this manuscript. Written consent for publication was obtained from all participants where applicable. Proof of consent can be provided upon request.

Ethical Approval Statement

This study was reviewed and approved by the University of Mindanao Ethics Review Committee and DepEd Region XI, which serves as the ethics review body for research involving teachers in the region. Approval Reference No.:UMERC-2025-006. All

respondents provided written informed consent prior to data collection. Participation was voluntary, and respondents were free to withdraw at any time without penalty. The study was conducted in accordance with the ethical principles of the University of Mindanao, Department of Education, and the Data Privacy Act of 2012 (Republic Act No. 10173, Philippines).

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Competing Interests Statement

The authors declare that they have no financial or non-financial competing interests.

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