

Mediating Effect of Change Management Practices of School Leaders in the Relationship between Adversity Quotient and Organizational Commitment of Teachers

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Abstract

Exploring the dynamic relationship among teachers' adversity quotient, organizational commitment, and the pivotal role of school leaders' change management practices offers a comprehensive understanding of how strategic leadership impacts educational environments. This study aimed to explore the mediating effect of school leaders' change management practices on the relationship between teachers' adversity quotient and their organizational commitment in Region XI, Philippines. Employing a random sampling method, 200 public school teachers from this region were surveyed using a non-experimental quantitative approach, which included mediating and descriptive correlation analyses. The findings highlighted a high adversity quotient and organizational commitment among teachers, alongside very high levels of change management practices among school leaders, indicating that these attributes are frequently present. A notable correlation was found between teachers' adversity quotient, their organizational commitment, and school leaders' change management practices. Importantly, the change management practices of school leaders significantly mediated the relationship between teachers' adversity quotient and organizational commitment, underscoring the crucial role of strategic leadership in influencing organizational outcomes. Recommendations include encouraging Department of Education Officials to start or continue resilience and leadership training programs to boost commitment and foster effective change management. Further studies are advised to investigate the long-term effects of such interventions and to develop policies that support teacher well-being and leadership skills, promoting a conducive work environment and higher commitment levels.

Keywords

Change management practices, Adversity quotient, Organizational commitment

INTRODUCTION

Employee commitment is crucial in schools for consistent performance, positive relationships, and a supportive work culture. This commitment, essential for achieving goals, becomes even more critical as schools focus on diversity and inclusivity. Teachers facing personal adversities and workplace changes require supportive leadership and clear communication of change initiatives. Studies indicate a complex link between teachers' adversity quotient—their ability to handle challenges—and organizational commitment. However, the precise influence of leadership practices on this relationship remains unclear (Virgana, Suendarti, Lapasau, & Hasbullah, 2022; Ariyanto, Fuad, & Muhab, 2023).

Internationally, the importance of leadership in navigating organizational change within schools has been acknowledged, with research showing varied effects across different cultural and institutional contexts. For instance, Subagyo, Akbar, & Wibowo (2019) in Indonesia, found a direct and positive correlation between adversity quotient and organizational commitment. The more adept individuals are at handling life's challenges, the higher their commitment to the organization. Additionally, findings emphasize the importance of recognizing individuals as central to the transformation process and promoting loyalty through transparent communication and leadership practices, as noted by Friden & Holmgren (2015). Additionally, in Africa, Imbuga, Sila, and Wesonga (2021) emphasize the transformative

potential of leadership and change management in reshaping tertiary agricultural education institutions. These findings collectively suggest that enhancing the adversity quotient and fostering transparent communication are crucial for effective leadership and change management in education. Focusing on these elements enables educational institutions to cultivate a more committed and resilient faculty, essential for navigating and adapting to ongoing changes.

In the Philippines, the educational landscape is uniquely influenced by its own set of challenges and opportunities. Pointed out the critical role of leadership during transition periods in schools, emphasizing the necessity for administrators to quickly adapt and implement changes to maintain or improve school performance (Tenerife, Galingan, & Nawawi, 2018). Research by Padagas (2016) on public secondary school teachers sheds light on the positive correlation between adversity quotient, job satisfaction, and organizational commitment. Teachers' ability to effectively cope with adversities is found to enhance their commitment to their work, facilitated by support mechanisms in place. Conversely, studies like the one conducted by Ablaña and Isidro (2015) on City Government employees of Tayabas City, Quezon Province, reveal a discrepancy between adversity quotient and job performance, indicating the complexity of factors influencing organizational commitment.

The existing research underscores the critical importance of organizational commitment within educational institutions, particularly schools, in fostering consistent performance and maintaining a positive work culture. As education systems worldwide grapple with unprecedented challenges—from technological disruptions to global pandemics—the need for effective change management strategies has become more critical than ever. Studies such as those by Saragih, Tjakraatmadja, and Pratama (2023) highlight the pressing need for educational leaders to adopt and adapt best practices in change management to ensure not only the resilience and commitment of their teachers but also the overall effectiveness and sustainability of educational institutions.

MATERIALS AND METHODS

Research Design

This study utilized a non-experimental quantitative research design that considers mathematical statistics to prove theories and hypotheses concerning a phenomenon (Creswell, 2000). Initially, this study utilized a descriptive correlation to examine the association between two or more variables. McCombes, (2019) defined correlational study design as tests of the relationship between two variables without any of them being influenced by the researcher. Next, this method was employed to describe the relationship among the variables; school leaders' adversity quotient, change management practices, and organizational commitment. Then, it utilized a path analysis statistical technique that will describe the mediating effect of change management practices on the relationship between the adversity quotient and the organizational commitment of school leaders. As discussed by Kline (2015) path analysis is a subset of structural equation modeling (SEM) that examines the directed relationships between a set of variables. It is used to specify and estimate the causal structures between observed variables, allowing researchers to assess direct and indirect effects within a hypothesized model without latent variables.

Research Respondents

There were 200 public school teachers in Region XI selected as respondents for this study. They were chosen through random sampling, a method described by Shin (2020) as ensuring that each sample within a population has an equal probability of being selected for the study.

Research Instruments

The research utilized adapted questionnaires from various authors, tailored to suit the current study's objectives. Three main instruments were employed: a modified questionnaire on Adversity Quotient (Baog & Cagape, 2022), the Organizational Commitment Questionnaire (Meyer & Allen, 1991), and the Change Management Practices Questionnaire (Mudanya, 2017). These instruments underwent validation by three expert validators in the research field and were further pilot-tested on 20 teachers to assess reliability. Reliability was evaluated using Cronbach's alpha based on standardized items.

Data Gathering Procedures and Ethical Considerations

Throughout the data-gathering process, all necessary steps were followed, including adherence to ethical standards. This encompassed ensuring respondents' confidentiality, obtaining informed consent, and appropriately attributing adapted questionnaires to original authors. Moreover, the validation of instruments by expert validators and pilot testing on a sample of teachers was conducted in line with ethical guidelines to ensure the reliability of the gathered data.

Data Analysis

The data gathered were subjected to various statistical treatments and measures to address the research questions posed in the statement of the problem and to evaluate the collected data comprehensively. These analyses included calculating the means to assess the levels of adversity quotient, organizational commitment among teachers, and change management practices among school leaders. Furthermore, the Pearson Product Moment Correlation Coefficient was employed to explore the relationships between the adversity quotient, teachers' organizational commitment, and the change management practices of school leaders. Additionally, path analysis was conducted to investigate the mediating effect of school leaders' change management practices on the relationship between teachers' adversity quotient and organizational commitment.

RESULTS AND DISCUSSION

Levels of Adversity Quotient, Organizational Commitment among Teachers, and Change Management Practices among School Leaders

Shown in Table 1 are the levels of the variables: adversity quotient, organizational commitment among teachers, and change management practices among school leaders in Region XI. The data were analyzed through mean and standard deviation. The standard deviation ranges from 3.553 to 4.369 which suggests a moderate to relatively large variability among the data points. The overall descriptive level of adversity quotient was high, with a mean score of 3.627, indicating the adversity quotient of teachers is often manifested. Moreover, the overall descriptive level of organizational commitment among teachers was very high, with a mean score of 4.259, implying that the organizational commitment of teachers is always manifested. Furthermore, findings revealed an overall mean of 4.102 on change management practices among school leaders, indicating that change management practices are almost always evident among school leaders.

Table 1 Levels of Adversity Quotient, Organizational Commitment among Teachers, and Change Management Practices among School Leaders

Item	Mean	SD	Descriptive Level
Control	3.553	.634	High
Ownership	3.707	.555	High
Reach	3.650	.602	High
Endurance	3.599	.658	High
Adversity Quotient	3.627	.528	High
Affective Commitment	4.293	.576	Very High
Continuance Commitment	4.243	.603	Very High
Normative Commitment	4.242	.620	Very High
Organizational Commitment	4.259	.558	Very High
Strategic Vision	3.748	.501	High
Leadership	3.958	.537	High
Communication	4.369	.629	Very High
Staff Empowerment	4.335	.639	Very High
Change Management Practices	4.102	.447	High

The study's findings, aligning with Limen's (2019) research in Agusan del Norte, indicate that teachers possess a high adversity quotient, suggesting their capability to overcome work-related obstacles. The significance of resilience, opportunity recognition in new situations, technological adeptness, and finding life's purpose emerge as crucial for maintaining job dedication. Teachers exhibiting high adversity view challenges as temporary and external, leading to optimism and life satisfaction. This outlook fosters a proactive stance towards adversities, enabling teachers to transform challenges into opportunities, as supported by the findings of Somaratne, Jayawardena, & Perera (2017). Contrarily, research among business leaders and employees in the City of Tayabas presented an average to below-average adversity quotient, emphasizing the potential for growth in resilience through continuous learning and self-development activities, highlighting a universal potential for enhancing adversity quotient across different professional domains (Ablaña and Isidro, 2016).

The result of the study was supported by Baog and Cagape (2022), who conducted a study among public secondary school teachers in Davao City and found a high level of organizational commitment among teachers. They also found that the adversity quotient positively correlated with organizational commitment. This is consistent with the findings of the study of Larber and Savis (2014), which found a high level of organizational commitment among the respondents. However, there are cases in which teachers have a minor level of work commitment even though they all find a sense of economic security in the school. For instance, in the study of Sepahvand, Shoorideh, and Tafreshi (2017) among 126 nurses at the Social Security Hospital of Khorramabad, it was shown that nurses had a moderate level of work commitment. This was consistent with the study by Labraque, Petite, Tsaras, Cruz, Colet, Gloe (2018), who also exemplified the need to formulate and implement interventions to promote lifelong commitment toward work.

USAID (2015) and Mudanya (2017) emphasize the necessity for employees to fully understand and support change initiatives, highlighting that awareness of the issues addressed by the change and the envisioned future state is crucial for minimizing resistance and fostering employee buy-in. This alignment of organizational priorities with the change efforts and clear, strategic communication increases the likelihood of successful implementation. However, the commitment of senior leadership and the formation of a diverse team for feedback are pivotal; without these, the risk of failure is high. Kolzow (2014) further notes the importance of effective leadership in retaining top talent, stressing that strong, transparent leadership that encourages open communication is essential for an organization's health and success, while poor leadership can be detrimental, posing significant challenges in identifying and addressing ineffective leaders.

Correlation between Adversity Quotient, Organizational Commitment among Teachers, and Change Management Practices among School Leaders

Shown in Table 2 is the correlation analysis between adversity quotient, organizational commitment among teachers, and change management practices among school leaders in Region XI. The results revealed a very high positive correlation

between adversity quotient and organizational commitment among teachers ($r = .905$, $p < 0.05$), hence rejecting the null hypothesis. This is consistent with findings from studies in Indonesia by Subagyo, Akbar, and Wibowo (2019), and Padagas (2016), it is evident that an increase in adversity quotient positively correlates with heightened organizational commitment among teachers. Similarly, research by Qamaruddin, Mukti, and Margaretha (2020) in Indonesia, and Singh and Sharma (2017) in India, highlights the significant influence of adversity quotient on work commitment. These studies emphasize the importance of enhancing the adversity quotient to bolster work commitment, suggesting aggressive training initiatives for employees.

Table 2 Correlation between Adversity Quotient and Organizational Commitment of Teachers and Change Management Practices of School Leaders

Independent Variable	Dependent Variable	r-value	p-value	Interpretation
Adversity Quotient	Organizational Commitment	.905**	.000	Significant
Adversity Quotient	Change Management Practices	.885**	.000	Significant
Change Management Practices	Organizational Commitment	.943**	.000	Significant

Additionally, a high positive correlation was found between the adversity quotient of teachers and the change management practices of school leaders ($r = .885$, $p < 0.05$), hence, the rejection of the null hypothesis. The statistical evidence supports the Self-Affirmation Theory of Claude Steele (1988), suggesting that teachers' positive engagement with change initiatives may be driven by their desire to maintain a positive self-concept in terms of their adaptability and competence. Likewise, based on this theory, individuals have an inherent motivation to uphold positive self-perceptions across various domains, such as competence, morality, intelligence, and adaptability. When faced with situations that challenge these self-perceptions, individuals are likely to engage in behaviors that maintain or restore their positive self-image. In the context of organizational change, teachers with higher adversity quotients may possess a stronger sense of self-efficacy and resilience. As a result, they are more likely to view change as an opportunity to affirm their competence and adaptability, leading them to actively participate in change management initiatives.

Moreover, results also revealed a very high positive correlation between change management practices of school leaders and organizational commitment among teachers ($r = .943$, $p < 0.05$), hence rejecting the null hypothesis. This supports the findings indicating that perceptions of fairness in change management and personnel practices impact their affective commitment and cynicism, with higher levels of cynicism correlated with lower affective commitment. Addressing perceived fairness in management practices is crucial for enhancing affective organizational commitment, regardless of managers' beliefs about organizational integrity (English & Chalon, 2011). Additionally, transparent communication about changes reduces resistance and enhances organizational commitment, as evidenced by employees engaging positively about their organization with outsiders (Ahmad, Ismail, Rani, & Wahab, 2017). Furthermore, effective change implementation and sustained high performance require coordination, teamwork, leadership skills, and communication, aligning with Kurt Lewin's Change Management Theory, which emphasizes employee readiness for change and organizational transition towards desired states (Mudanya, 2017). Recognizing the need for change, providing support, and fostering employee commitment are vital elements for successful change management and organizational performance.

Mediating Effect of Change Management Practices of School Leaders on the Relationship between Adversity Quotient and Organizational Commitment of Teachers

Table 3 and Fig. 1 display the outcome of the regression analysis, indicating a positive link from Adversity Quotient to Organizational Commitment. Specifically, it shows a .89 unit rise in organizational commitment for every increment in adversity quotient. This effect is statistically significant, with a p-value less than 0.05. The findings imply that improving employees' resilience to adversity can strengthen their dedication to the organization, underscoring the value of implementing resilience-enhancement programs in organizational development and management practices.

Table 3 Regression Weights (Total Effect)

	Estimate	S.E.	P	Decision on Ho	Interpretation
Adversity Quotient → Organizational Commitment	0.889	0.024	0.001	Reject	Significant

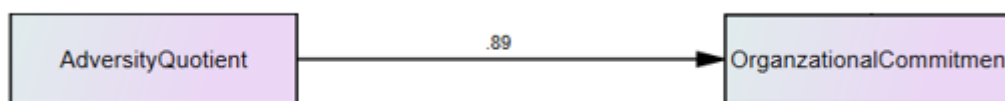


Fig. 1 Path Diagram for Adversity Quotient to Organizational Commitment

Table 4 details the mediating effect of school leaders' change management practices in the relationship between teachers' adversity quotient and their organizational commitment. Employing Path Analysis, it was found that the paths from Adversity Quotient to Organizational Commitment, Adversity Quotient to Change Management Practices, and Change Management Practices to Organizational Commitment were all statistically significant. This indicates that the change

management practices employed by school leaders partially mediate the relationship between teachers' adversity quotient and their commitment to the organization. The mediation analysis was conducted in three steps, outlined in Table 4 as Steps 1 to 3. Step 1 reveals a significant direct impact of adversity quotient on teachers' organizational commitment. Step 2 shows that the adversity quotient significantly affects the change management practices of school leaders, who act as the study's mediator. Finally, Step 3 highlights that the change management practices significantly influence teachers' organizational commitment, thereby confirming their predictive value.

Table 4 Mediating Effect of Change Management Practices of School Leaders on the Relationship between Adversity Quotient and Organizational Commitment of Teachers

	Step		Estimate	Std. Error	p-value	Decision on Ho	Interpretation
Adversity Quotient	→	Organizational Commitment	0.073	0.094	<.001	Reject	Significant
Adversity Quotient	→	Change Management Practices	0.731	0.346	<.001	Reject	Significant
Change Management Practices	→	Organizational Commitment	2.538	0.187	<.001	Reject	Significant

Moreover, achieving partial mediation is indicated when the regression coefficient significantly decreases in the final step yet remains significant. This demonstrates that change management practices of school leaders mediate a portion of the effect of teachers' adversity quotient on their organizational commitment. Meanwhile, other aspects may be directly impacted or indirectly influenced by external factors not considered in this model. In step 3, it was noted that the impact of teachers' adversity quotient on their organizational commitment diminished after accounting for the mediation by school leaders' change management practices, signifying partial mediation. This outcome was confirmed as significant, with a p-value less than 0.05.

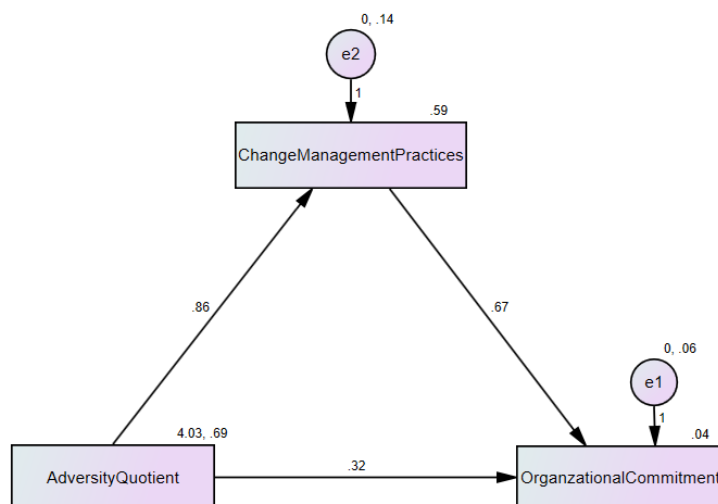


Fig. 2 Path Analysis Showing the Variables of the Study

Furthermore, Fig. 2 presents the calculated effect size for the mediation analysis involving three variables. This measure assesses how significantly the adversity quotient affects teachers' organizational commitment through an indirect route. A total effect size of 0.317 is linked to the mediated beta coefficient from the adversity quotient to the organizational commitment of teachers. Given the partial nature of the mediation, it is not accurate to conclude that the change management practices of school leaders are the sole factor through which the adversity quotient impacts teachers' organizational commitment. Rather, it suggests that these practices constitute just one of several mechanisms by which adversity quotient may affect organizational commitment among teachers.

In the mediation analysis of this study, the first critical step based on the process model of Hayes (2013) is to establish a correlation between the independent variable, adversity quotient, and the dependent variable, organizational commitment. Furthermore, the study successfully demonstrated in the second step a significant relationship between the adversity quotient and the mediating variable, change management practices of school leaders. The hypothesis testing in this study, in line with Hayes's framework, confirmed the significant influence of the mediating variable, change management practices of school leaders, on the dependent variable, organizational commitment of teachers. With all steps showing significant outcomes, the mediation was identified as partial. This result is viewed positively, indicating that the mediating variable, change management practices of school leaders, effectively influences the relationship between adversity quotient and organizational commitment of teachers.

This study highlights the integral role of school leaders' change management practices in bridging the gap between teachers' adversity quotient and their commitment to the organization. This relationship is bolstered by a significant body of research across organizational behavior, educational leadership, and psychological resilience.

Specifically, the concept of AQ, introduced by Stoltz (1997), underscores resilience as a predictor of success in facing organizational challenges, suggesting that a focus on building resilience can enhance teachers' organizational commitment. This is further supported by Kotter's (1996) insights on the essence of leadership in effecting change through clear communication, vision sharing, and empowerment, alongside Fullan's (2007) emphasis on the unique role of educational leaders in fostering a supportive culture that navigates the complexities of educational change. These perspectives collectively affirm the study's findings on the pivotal mediating role of leadership practices.

Moreover, the implications of this study extend into the realms of organizational commitment and the psychological capital framework, incorporating resilience as a key component. Meyer and Allen's (1991) model of organizational commitment suggests that change management practices can influence various dimensions of commitment, potentially enriching the affective attachment of teachers to their institutions. The inclusion of psychological capital elements, as discussed by Luthans and Youssef-Morgan (2007), alongside the strategic importance of crafting effective change messages outlined by Armenakis and Harris (2002), further delineates the critical nature of leadership communication in enhancing teacher commitment through change management. Thus, the study underscores the multifaceted influence of leadership in cultivating an environment where resilience is not only recognized but actively fostered to bolster organizational commitment among educators.

SUMMARY OF THE FINDINGS OF THE STUDY

The overall mean score of teachers' adversity quotient across dimensions such as control, ownership, reach, and endurance was deemed to be at a high level, indicating a frequent demonstration of adversity quotient by teachers.

The overall mean score of organizational commitment of teachers encompassing affective, continuance, and normative components, was categorized at a very high level, suggesting a consistent expression of organizational commitment among teachers.

The overall mean score for change management practices executed by school leaders also reached a high level, showing that such practices are prominently observed.

Additionally, the significant testing outcomes demonstrated a strongly positive correlation between teachers' adversity quotient and their organizational commitment, leading to the rejection of the null hypothesis, which implies that an increase in adversity quotient correlates with enhanced organizational commitment.

Moreover, a robust positive correlation was observed between teachers' adversity quotient and school leaders' change management practices, supporting the rejection of the null hypothesis and indicating that an improvement in adversity quotient boosts change management practices.

Furthermore, a strong positive relationship was also noted between school leaders' change management practices and teachers' organizational commitment, suggesting that more pronounced change management practices by school leaders correlate with greater organizational commitment among teachers.

Lastly, the path analysis revealed that school leaders' change management practices play a vital intermediary role between teachers' adversity quotient and their organizational commitment. This underscores the pivotal influence of leadership in fostering organizational commitment by strategically managing change, thereby acting as a key mediator in translating teachers' resilience into organizational commitment.

CONCLUSION

Change management practices implemented by school leaders significantly influence the dynamics between teachers' adversity quotient and their commitment to the organization in Region XI. This finding is supported by Kotter's (1996) Eight Steps for Leading Change, which illustrates how leaders can significantly impact staff resilience and commitment by successfully implementing change from establishing urgency to integrating new practices into organizational culture. Additionally, research, including Nielsen and Randall's (2013) study, indicates that strategic change management by leaders serves as a key intermediary, affecting the relationship between organizational variables and outcomes like employee commitment.

RECOMMENDATIONS

Based on the findings and conclusions, recommendations are provided for various stakeholders.

For Department of Education Officials, it is advised to initiate and enforce resilience training programs targeting the bolstering of teachers' adversity quotient, which has been identified to significantly correlate with their organizational commitment. Additionally, it is recommended to promote and support leadership development initiatives that concentrate on imparting effective change management skills among school leaders.

School leaders are encouraged to cultivate an environment of ownership and active engagement among teachers by implementing effective change management practices, including transparent communication and collaborative decision-making. Additionally, leaders should focus on their personal development, particularly in areas related to managing change and navigating adversity, as this can positively enhance staff commitment.

Teachers are urged to pursue ongoing professional development to boost resilience and adaptability, with a focus on workshops and training aimed at increasing their adversity quotient, thereby advancing personal and professional growth. Furthermore, their active involvement in school change initiatives, by providing valuable insights and solutions, is essential for creating a more inclusive and supportive school environment, ultimately strengthening their commitment to the organization.

Future research should look into the longitudinal effects of change management practices and adversity quotient on organizational commitment. In addition, investigate other potential mediating variables that may influence the relationship between adversity quotient and organizational commitment.

For Policymakers, develop and support policies that prioritize teacher well-being, resilience, and professional development. Policies that facilitate a supportive work environment can help enhance teachers' commitment and overall job satisfaction. Moreover, allocate resources towards leadership training for school administrators, focusing on change management, resilience building, and effective communication.

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DECLARATION OF CONFLICT

The authors assert that there are no known competing financial interests or personal relationships that could seem to have affected the research presented in this paper.

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REFERENCES

1. Ablaña, M.V. & Isidro, D. (2015). Correlation Between Adversity Quotient® And Job Performance Of LGU Employees Of Tayabas City: Input To Effective Public Personnel Management. https://www.peaklearning.com/documents/PEAK_GRI_Isidro_Ablana.pdf
2. Ahmad, I., Rani, & Wahab (2017). Trust in management, communication, and organizational commitment: Factors influencing readiness for change management in the organization. AIP Conference Proceedings 1891, 020019 (2017); <https://doi.org/10.1063/1.5005352> Published Online: October 03, 2017
3. Ariyanto, A., Fuad, N., & Muhab, S. (2023). The Influence of Transformational Leadership and Adversity Quotient on Teachers' Organizational Citizenship Behavior. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*. DOI:10.37680/scaffolding.v4i3.2339
4. Armenakis, A.A. and Harris, S.G. (2002), "Crafting a change message to create transformational readiness", *Journal of Organizational Change Management*, Vol. 15 No. 2, pp. 169-183. <https://doi.org/10.1108/09534810210423080>
5. Baog, I. W., & Cagape, W. E. (2022). Adversity Quotient and Work Commitment among Public Secondary School Teachers in Davao City. *Asian Journal of Education and Social Studies*, 29(2), 25-45. <https://doi.org/10.9734/ajess/2022/v29i230695>
6. English, B. & Chalon, C. (2011). Strengthening Affective Organizational Commitment: The Influence of Fairness Perceptions of Management Practices and Underlying Employee Cynicism. *The Health Care Manager: January 2011 - Volume 30 - Issue 1 - p 29-35* DOI: 10.1097/HCM.0b013e3182078ae2
7. Friden, E. & Holmgren, M. (2015). Managing commitment to change - How to increase the success rate of change initiatives. An investigation of formal and informal leaders' perceptions of how to develop a commitment to organizational change. <http://www.diva-portal.org/smash/get/diva2:946089/FULLTEXT01.pdf>
8. Fullan, M. (2007). *The New Meaning of Educational Change*. Teachers College Press.
9. Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. The Guilford Press.
10. Imbuga, M., Sila, D., & Wesonga, J. (2021). Leadership and change management to transform tertiary agricultural education institutions. *Transforming tertiary agricultural education in Africa*. DOI:10.1079/9781789246544.0006
11. Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Press.
12. Kolzow (2014). *Leading From Within: Building Organizational Leadership Capacity*. https://www.iedconline.org/clientuploads/Downloads/edrp/Leading_from_Within.pdf
13. Kotter, J. P. (1996). *Leading Change*. Boston, MA: Harvard Business School Press.
14. Labrague, L., Petite, D., Tsaras, K., Cruz, J., Colet, P., Gloe, D. (2018). Organizational commitment and turnover intention among rural nurses in the Philippines: Implications for nursing management. *International Journal of Nursing Sciences*, Volume 5, Issue 4, 2018. ISSN 2352-0132
15. Larber M, Savis SB. (2014). Factors affecting nurses' organizational commitment. *Obzornik zdravstvene Nege*. 2014; 48(4): 294-301. DOI: 10.14528/snr.2014.48.4.34.
16. Limen (2019). New Age Social Intelligences and Their Influence on Teachers' Commitment Among Teachers in Central Elementary Schools. *SMCC Teacher Education Journal* ISSN Print: 2008- 0598 • ISSN Online: 2008-0601 Volume 1 • June 2019
17. Luthans, F., & Youssef-Morgan, C. M. (2007). *Psychological Capital: Developing the Human Competitive Edge*. Oxford University Press.
18. McCombes, S. (2019). *Research Design: Types, Methods, and Examples*. <https://www.scribbr.com/research-process/research-design/>
19. Meyer, J, & Allen, N., (1991). A Three-Component Conceptualization of Organizational Commitment. *Human Resource Management Review*. Retrieved from [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z).

20. Mudanya, F.I. (2018). The Effect of Change Management Practices on the Implementation of Enterprise Resource Planning At the United Nations Office, Nairobi.
<http://dspace.pacuniversity.ac.ke:8080/xmlui/bitstream/handle/123456789/1441/Flevian%20Mudanya.pdf?sequence=1>
21. Nielsen, K., & Randall, R. (2013). Opening the black box: Presenting a model for evaluating organizational-level interventions. *European Journal of Work and Organizational Psychology*, 22(5), 601-617.
DOI:10.1080/1359432X.2012.690556
22. Padagas, R. C., (2016). Resilience Quotient, Job Satisfaction and Organizational Commitment of Public Secondary School Teachers of the Division of City Schools of Mandaluyong City. *Proceedings Journal of Education, Psychology and Social Science Research*. <https://ssrn.com/abstract=3139773>
23. Qamaruddin, Mukti, A., & Margaretha. (2020). Effects of leadership and adversity quotient. *Nommensen International Conference on Creativity & Technology*. Medan, North Sumatera, Indonesia: NICCT.
24. Saragih, S., Tjakraatmadja, J., & Pratama, A. (2023). Urgency of Managing Digitalization in Higher Education. *International Journal of Management, Entrepreneurship, Social Science and Humanities*. DOI:10.31098/ijmesh.v6i1.1339
25. Sepahvand, Shoorideh, & Tafreshi (2017). The relationship between some demographic characteristics and organizational commitment of nurses working in the Social Security Hospital of Khorramabad. *Electronic Physician (ISSN: 2008-5842)*. Volume: 9, Issue: 6, Pages: 4503-4509, DOI: <http://dx.doi.org/10.19082/4503>
26. Shin, T. (2020). Four Types of Random Sampling Techniques Explained with Visuals. *Towards Data Science*. <https://towardsdatascience.com/four-types-of-random-sampling-techniques-explained-with-visuals-d8c7bcba072a>
27. Singh & Sharma (2017). Affect of Adversity Quotient on the Occupational Stress of IT Managers in India. *Procedia Computer Science*. Volume 122. 2017. Pages 86–93, ISSN 1877 0509. <https://doi.org/10.1016/j.procs.2017.11.345>.
28. Somaratne, C. & Jayawardena, L.N.A.C. & Perera, B. (2017). Impact of adversity quotient on stress levels of middle-level managers of non-governmental organisation (NGO) sector. *Tropical Agricultural Research*. 29. 45. 10.4038/tar.v29i1.8296. https://www.researchgate.net/publication/331866472_Impact_of_adversity_quotient_on_stress_levels_of_middle-level_managers_of_non-governmental_organisation_NGO_sector/citation/download
29. Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261-302). Academic Press.
30. Stoltz, P. G. (1997). *Adversity Quotient: Turning Obstacles into Opportunities*. New York: John Wiley & Sons, Inc.
31. Subagyo, S., Akbar, M., & Wibowo, W. (2019). The Effect of Leadership, Adversity Quotient on Organizational Commitment of PT. *Jaya Konstruksi Manggala Pratama Tbk. IJEBD (International Journal Of Entrepreneurship And Business Development)*, 2(2), 271–279. <https://doi.org/10.29138/ijebd.v2i2.854>
32. Tenerife, J.T., Galingan, R., & Nawawi, M.M. (2018). LEADERSHIP AND INTEGRITY IN PHILIPPINE PRIMARY EDUCATION: AN ETHNOGRAPHIC STUDY ON GOVERNANCE IN THE MIDST OF CHANGE. https://www.academia.edu/66469125/Leadership_and_Integrity_in_Philippine_Primary_Education_An_Ethnographic_Study_on_Governance_in_the_Midst_of_Change
33. USAID. (2015). Change management best practices guide. Retrieved from <https://www.usaid.gov/sites/default/files/documents/1868/597saj.pdf>
34. Virgana, V., Suendarti, M., Lapasau, M., & Hasbullah, H. (2022). Measuring the Effects of Adversity Quotient, Organizational Culture and Job Satisfaction on Special School Teachers' Organizational Commitment. *International Journal of Educational Management and Development Studies*. DOI:10.53378/352886