Impact of Governance Constraints on Elderly Care Effectiveness: The Mediating Role of Community Engagement and Organizational Adaption

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Abstract

This rapid growth older population has created some major challenges in the structure of developing countries such as Pakistan. These rapid rise of older population change the traditional care giving structure of elderly population in Pakistan, which increased transformations of older population towards old age homes. These transformations highlighted the need for new nursing homes, which require financial allocation and policy domains to support the elderly population's needs. But the development of new nursing homes has faced many challenges including political challenges. In this context, grounded with the institutional theory and community engagement theory, this study examined the impact of political challenges on elderly care effective by the mediating role of both community engagement and organizational adaption in the terms of Pakistan. By using well-structured questionnaire, a total 305 number of survey responses were collected from the employees of different old age homes of Pakistan, but after the process of data smoothing 283 valid and usable responses were taken for final data analysis. For the analysis of collected data this study used hybrid approach of both PLS-SEM and ANN to measure the both linear and non-linear relationships of the proposed framework. The findings of the study revealed that the both community engagement and organizational adaption significantly enhance elderly care services. While ANN highlights that the organizational adaption was the most influential variable in predicting outcomes of elderly care effectiveness. These results of this study provide some valuable insights for the policymaker and manager who are working the context of old age homes of Pakistan.

Keywords: Community Engagement, Old Age Homes, Political Challenges, Organizational Adaption, PLS, SEM, ANN, Pakistan

Introduction

The ratio of elderly people is increasing continuously all around the world (Lobanov-Rostovsky et al., 2023). This rapid growth older population has created some major challenges in the structure of developing countries (Shoaib, Ajani, Huda, & Jetha, 2025). In that countries, providing efficient care and support to that increasing elderly population has gained much of importance (Sualeha Siddiq Shekhani, 2024). In between these developing countries Pakistan has around 11.3 million population of older adults and this ratio of older population is like to be near 43.3 million till 2050 (Sabzwari, Iqbal, Fatmi, & Azam, 2019). However, In Pakistan majority belongs to Muslim community and they follow their old traditional joint family structure, where they give respect, security and assistance to their older adults. For that reason becoming old has never been an issue there (Itrat, Taqui, Qazi, & Qidwai, 2007). These strong and values among the people of this country place responsibility on children to take care of their parents or elderly adults (S. S. Shekhani, 2024). However, in recent years many social changes are seen may be because of urbanization and economic pressure which has transformed the structure and experiences of providing care and support to the older adults (Asghar, 2025). Due to that structural change and in terms to provided more better health care services to the

elderly population " old age homes " are day by day gaining importance (Waris Qidwai1, 2018). These old age homes are mainly own by small, medium and large businesses or welfares which aims to provide high quality long term health care services to the older adults (Claire Goodman et al., 2014). However, the movement of older population from their homes towards old age homes are significant life even for them which require them to effectually adopt these new environmental changes while facing some challenges (Sun et al., 2021). As they move from their homes to old age homes, they face many challenging factors such as personal factors, nursing homes factors, social support etc. which influence their adjustment to new life structure (Q. Wang, Fan, & Li, 2022). While, most of older population living in these old age homes feels like they don't have any control over their life (Baur & Abma, 2012). This may be due to residents who lives in those old age homes have lost their family and friends compared with where they lived before moving to old age homes (Rawson, Rigby, Ockerby, & Forbes, 2022). Furthermore, due to lack of strength and limited mobility their participation in the activities of community are also becoming difficult (Chang, Coster, & Helfrich, 2013), which give rise to the challenges such as limited communication opportunities and decline in social support (Koppitz et al., 2017). Older adults who participate actively among these kinds of social activities are likely to have lower risk of functional decline and also have enhanced quality of life (Gough, Lewis, Barr, Maeder, & George, 2021). Therefore, to provide effectively provide high quality care to the residents to their old age homes managers have to enhance their participation among these social activities and to collaborate with the stakeholders, thereby to increasing satisfaction level of the residents of their old age homes (Chang et al., 2013; Yoon, 2018). Furthermore, these transformations highlighted the need for new nursing homes, which require financial allocation and policy domains to support the elderly population's needs (Shah, 2025). But the development of new nursing homes has faced many challenges including political challenges and the government should give this sector greater attention to build facilities that meet the needs of the elderly population. So that they can enjoy those public services equally (Chang Yi, Wenyang Han, Yiheng Liu, Yijie Lin, & Qi, 2025). Many resources are required for the development of nursing homes, including a significant initial investment and the time it takes to recoup that investment (Chen, 2023). At the same time, most of the urban elderly population choose these care services freely and easily. While the poor elderly population in urban areas receives limited government subsidies, these subsidies are only provided to the poorest and oldest elderly population in rural regions. Hence, most of the elderly population in rural areas live on their own savings or on financial support from family members (Ma, Shi, & Li, 2019). Therefore, to significantly enhance both of the mental and physical health in elderly population and to provide the high quality of development of the elderly care services, it is compulsory for the government remove regulatory complexity and to successfully implement policies related to elderly care effectiveness like providing financial subsidies to these institutes, tax exclusions and consistent standards related to construction (Zhang et al., 2022). Another priority of theirs is to ensure a good work environment within the organization, and it also includes high-quality management with the right conditions to take the lead (Porter & Muhonen, 2021). Additionally, to ensure that the workers in elderly care centers have proper training and experience to perform their jobs effectively (Gusi et al., 2012). Policy makers and politicians also ensure that conditions comply with the relevant rules and laws, though the operational responsibility for the workplace environment is to be managed by frontline managers and employees through their daily tasks (Hagerman, Engstrom, Wadensten, & Skytt, 2019). To enhance the development of elderly care centers, it is considered necessary to examine how characteristics influenced the existing policies mix on building of senior centers to help departments of the government to express more effective and accurate policies which can immediately attain development of elderly care centers and also to address full challenges related to socioeconomic factors. However, there is a lack of studies which investigates how these factors of political challenges influence the effectiveness of elderly care mainly in the context of developing countries. For that reason, this study is developed to investigate how factors of political challenges influence effectiveness of elderly care services in Pakistan.

Theoretical Foundation, Hypothesis Development
To explore the role of political challenges in enhancing community engagement and organizational adaption to significantly influence the elderly care effectiveness in the old age homes of Pakistan.

This study id grounded with a combination of both community engagement theory and institutional theory. The institutional theory indicates that the institutions, organization should adopt or response to the pressure which they face externally such as political rules, regulations, challenges (Berthod, 2018). In the context of this study political factors like government policies, regulatory frameworks and funding policy impacts how elderly care providers adjusts their strategies and structures. These changes impact the quality the effectiveness of elderly care services in old age home. Moreover, organizations might enhance their service quality by reorganizing their model, including training employees to be able to deal with these issues (Lyng et al., 2021).

Furthermore, community engagement theory indicates the important role of social networks, stakeholder and collaboration in enhancing the outcomes of both health and services in organization (Cyril, Smith, Possamai-Inesedy, & Renzaho, 2015). In the context of this study it highlights the significant role of a community engagement to deal with the challenges related to political factors, while influencing the outcomes of elderly care effectiveness This provides an approach linked with knowledge of how engagement and cooperation of the community enhance the services of elderly care by maintaining cooperation and trust among the stakeholders (Nan & Lin, 2001; "Study on China's Time Bank Mutual Care Model for the Elderly from the Perspective of Social Capital Theory," 2023). Combination of these theories provides a structured framework for deeply understanding how these factors of political challenges enhance the outcomes of organizational adaption and community engagement to enhance the elderly care effectiveness of elderly population of old age homes and to understand the environment of old age homes of Pakistan in better way.

Political Challenges and Community Engagement
The increasing number of elderly populations often requires the redevelopment of policies that address both aspects of social security and the costs associated with their health care (Maresova, Lee, Fadeyi, & Kuca, 2020). In order increase more benefits of the nursing homes for the elderly populations, these is a need to promote develop of nursing homes, this kind of development id important for the elderly population but this development of nursing homes are sometimes affected by the some external factors like economic conditions, interventions of government and engagement of the local communities (Ji, Wei, Sun, Seo, & Chen, 2023). Therefore, to enhance the outcomes of both the mental and physical health of the elderly population and for the development of a quality elderly care system, the government has successfully implemented an extensive range of policies, which include tax exclusions, financial subsidies, and consistent standards for their construction (Zhang et al., 2022). But issues arise: these policies wield a range of government powers, and unclear planning in the context of elderly care policies does not help shift social resources toward the development of nursing homes (Chen, 2023). Furthermore, community engagement is considered an essential tool for the successful implementation of sustainable elderly care services (Razavi, 2022).

Moreover, the engagement of communities in the operational activities and the development of nursing homes, their services can be personalized to meet the required needs of the elderly population relatively, ensuring a higher level of effectiveness and acceptance among their residents of nursing homes (Pilayon, Chueaduangpui, Saentho, Kongmant, & Turnbull, 2025).

Furthermore, numerous scholars have investigated the enhancing role of community engagement with the respective of these political challenges such as a study by Pilayon et al. (2025) suggested that with the involvement of the community members in development and operational processes of the nursing homes can enhance the effectiveness of their services, indicating that how the engagement of community increases in response to political challenges. Furthermore, aa study by Barnestein-Fonseca et al. (2024) highlights how political challenges in health care system and gaps in policy implementation affects engagement of organization with community. Therefore, there is a need to further explore that relationship of political challenges and community engagement in the structure of old age home. So, the study proposed the following hypothesis:
H1: Political challenges positively influence community engagement.

Political Challenges and Organizational Adaption
Sometimes the process of elderly care is highly dynamic and poses challenges for all staff in nursing homes, including managers and staff (Karantzas et al., 2012) as they managers of these nursing homes

plays an essential role in handling and dealing with the dual responsibility of providing healthy and safe environment for the both of staff and residents to have a better work environment and to provide high quality services to their residents (Mageroy, Braut, Macrae, & Wiig, 2023). The increase in the elderly population is also a major political priority, and it has to be dealt with the same level of importance as other challenges such as climate change and financial crises (Gesellschaft, 2024), as the elderly care sectors are highly structured and affected by the changes of policy with the regular changing of funding models. Over the last few years, elderly care facilitation centers in many countries have been dealing with frequent changes in government funding policies and care-related activities, which have placed them under political pressure (von Treuer et al., 2018). In that condition, to provide quality care to their residents, nursing home staff must be able to manage and adopt these changes (Mossholder, Settoon, Armenakis, & Harris, 2000). This reduces the rate of unfavorable events in their nursing homes' operational activities (Chu, 2022). The nursing home workforce begins to adapt to these changes and continues to engage in these behaviors (Claiborne, Auerbach, Lawrence, & Schudrich, 2013). This also plays an important role in enhancing their daily operational activities, which will help the resident of old age homes to maintain their daily life routine in a well-structured way while developing a feel of community in them (Haase et al., 2025).

Furthermore, most of the studies examined the impact of political challenges like a study of Porter and Muhonen (2021), investigated how the political issues such as restrictions and controls influence the care services provided to older adults. They also highlighted how these political challenges enhance the ability of the organization or staff to significantly deal with these challenges. Moreover, a study of von Treuer et al. (2018) investigated how the factors related to organization impacts the health care giving services in nursing homes, they also investigate how the organizational should adopt these changes in order to address these internal and external challenges (political challenges). However, there are very limited studies to investigate this relationship mainly in the context of structure of old age homes in the terms of developing countries such as Pakistan. So, the study proposed the following hypothesis:

H2: Political challenges can positively impact organizational adaptation.

Organizational Adaption and Elderly Care Effectiveness
The concept of organizational adaptation is considered a process of coordination aimed at attaining continuous high-quality care while helping them stay independent and reduce decline in their abilities (Smit, De Wit, Nieuwenhuizen, Schuurmans, & Bleijenberg, 2021). In the context of elderly care, effective organizational adaptation is meant to address and respond to these policy shifts and demographic transformations, in order to effectively maintain care of their residents (Vartiainen et al., 2025). As the number of older population is increasing day by day, such transformations create challenges for the policy makers, managers, and staff to maintain their effective elderly care, which enhances level of satisfaction and a life that matters, apart from just providing symptom control safe housing to the elderly population (Sjogren, Lindkvist, Sandman, Zingmark, & Edvardsson, 2017). As the older people moves towards old age homes they are affected by many factors such as lack of family support, lack of social support etc. (Zhao et al., 2023). Therefore, to offers them with effectively high quality of care, managers of these old age homes should need to implement adjustments to deal their organizational problems or challenges (Chang et al., 2013; Yoon, 2018).

However, Studies like Gamage, Jagodage, De Silva, Kariyawasam, and Sundarapperuma (2024) has highlighted that the organizational adaption like improving communications, teamwork and leadership play a vital role in enhancing the quality of care of the residents. Moreover, Scalzi, Evans, Barstow, and Hostvedt (2006) has highlighted the challenges and drivers of the changing environment of the organization and indicates the need for successful organizational adaptation to enhance the quality of care in their organization. However, there is a lack of research which investigates the mediating role of organizational adaption in the context of old age homes. So, the study proposed the following hypothesis:

H3: Organizational adaption significantly mediates the effectiveness of elderly care.

Community Engagement and Elderly Care Effectiveness

The community engagement is considered the umbrella that indicates the influence of the wide range of approaches that are aimed at maximizing the involvement of the different local communities towards other regional initiatives, to enhance the factors of health and well-being significantly, and to eliminate the barriers to health (Joseph, Burn, & Anderson, 2023). However, in some cases, older people living in nursing homes feel that they no longer have any control over their lives (Baur & Abma, 2012). This may be because residents in nursing homes are more likely to live alone and have lost their family and friends compared with where they lived before (Rawson et al., 2022). And because of the growing strength and limited mobility among the elderly population, their participation in community activities is also becoming difficult (Chang et al., 2013). Some of these give rise to challenges, such as limited communication opportunities and reduced social support (Koppitz et al., 2017). However, most elderly populations who actively participate in these kinds of social activities have reduced their risk of functional decline and increased their quality of life (Gough et al., 2021). For that it is considered important to investigate the factors of community engagement in the context of old age home to help policy makers to develop relevant and efficient strategies. Much of the studies examined the role of community engagement in the context of elderly health care systems such as Gough et al. (2021) highlighted that the influence of community engagement in the context of elderly population positively impact the both physical and mental health of elderly people while decreasing the level of stress and feeling of being alone in them, which is also considered important for a healthy and active life among older adults i.e. enhancing elderly care effectiveness. Furthermore, Hong et al. (2023) highlighted that engagement in community interventions plays a vital role in enhancing both health outcomes and social factors for the elderly population by improving accessibility and promoting social engagement, which, in turn, supports the provision of a healthier elderly population. But there is lack of studies which explore the mediating role of organizational adaptation. So, study proposed the following hypothesis:

H4: Community engagement mediates the effectiveness of elderly care.

Methodology
Research Design

This research is cross-sectional in nature as the data was collected from a single point in the time using a structured questionnaire in which distributed measurements were conducted. To ensure the all the measurement item's validity and reliability, items for the constructs were adopted from the prior existing studies such as measurement items for policy prioritization were adopted from the study of (Ji et al., 2023), funding & budget constraints were adopted from (Gamage et al., 2024; Hu, Zhang, Wang, & Shi, 2022), while items for influence of interest groups were adopted from (H. Wang, Coyte, Shi, Zong, & Zhong, 2023), and items for regulatory complexity were adopted from (triemstra, menting, & van den berg, 2021). Furthermore, for the community engagement, items were adopted from the study of (Brett et al., 2019). Whereas, items for the organizational adaptation were adopted from (von Treuer et al., 2018) and lastly measuring items for elderly care effectiveness were adopted from (Triemstra, Menting, & van den Berg, 2021).

Data Collection

The data for the purpose of this study was collected through a structured, self-administered questionnaire which was designed to measures the insights on political challenges, community engagement, organizational adaption and elderly care effectiveness. The questionnaire was based on closed ended and question were in Likert scale, which was organized into different session to ensure clarity. Data was collected primary using google forms, which was distributed through digital platforms. It was shared with primary targeted professionals who are working in different old age homes of Pakistan. The survey remained open for approximately four weeks, during which a total 305 number of survey responses were collected, but after the process of data smoothing and cleaning to remove kind of incomplete, inconsistent responses, 283 valid and usable responses were taken for final data analysis.

Data Analysis

This study has used a combination of partial least squares structural equation modeling (PLS-SEM) and artificial neural networks (ANN). A wide range of fields, including the social sciences, corporate management, and engineering, frequently use structural equation modeling (SEM) (Astrachan, Patel, & Wanzenried, 2014). Partial Least Squares (PLS) SEM is the type of SEM techniques which can process a huge range of both direct and mediated consequences in the model, we used it for the statistics analysis (Hair, Anderson, Tatham, & Black, 1998). Research studies with smaller sample sizes and those that have explored exploratory research design can both benefit from the application of PLS-SEM. Furthermore, Artificial neural networks are an approach to measure nonlinear relationships and to validate significant independent variable path more deeply by the multilayer perceptron with training and testing error learning is applied to measure the predictive accuracy and to estimating normalized importance of each significant independent variable. Overall, this dual approach has strengthened the validity and reliability of the research findings.

Results

According to the findings of this study most of the respondents were between of age 35 – 44 years 31.4% ratio. While, 28.6% of the respondent were in between their age of 25-34 years of age and only small portion of 8.5% of respondents were under 25 years of age. These results indicate that in the old age homes majority of the workers are relatively mature. Furthermore, according to their education status majority of the respondent 39.6% holds secondary education. While 27.9% of the respondent hold diploma, moreover 12.75 of the respondents hold primary education and small portion of only 19.8% for the results holds bachelor's degree. These results showed that majority of the employees working in old age homes are with mid-level qualifications.

Moreover, in the terms of their working experience in old age homes around 30.4% of the responds has 11-20 years of working experience. While, 27.9% of the respondents from collected samples had 5-10 years of working experience and 24% of the respondent had less than five years of working experience. Whereas, a small portion of respondent from collected sample 17.7% had over 21 years of experience. Followed with respect to their job roles, a larger portion of respondents from the collected samples were working as nurses. While, 24.4% of respondents were managers or supervisors of old age homes and 21/6% of the respondents were social workers. Whereas, a small portion of respondents from the collected sample ere working as administrative roles. Lastly, according to their trainings, most of the respondents from collected data 60.8% are receiving regular trainings and 39.2% of the respondents are not receiving regular trainings.

Table 1: Demographic Profile of Respondents

Variable	Category	Frequency (f)	Percentage (%)
Age Group	Under 25	24	8.5%
	25–34 years	81	28.6%
	35–44 years	89	31.4%
	45 years and above	89	31.4%
Education Level	Primary	36	12.7%
	Secondary	112	39.6%
	Diploma / Certification	79	27.9%
	Bachelor's Degree	56	19.8%
Years Involved in Elderly Care	<5 years	68	24.0%
	5–10 years	79	27.9%
	11–20 years	86	30.4%
	21+ years	50	17.7%
Job Role / Position	Nurse / Medical Attendant	105	37.1%
	Social Worker	61	21.6%
	Manager / Supervisor	69	24.4%

Variable	Category	Frequency (f)	Percentage (%)
	Administrative Staff	48	17.0%
Receive Regular Training?	Yes	172	60.8%
	No	111	39.2%

Based on the analysis of the measurement model, the study's construct quality is determined. Analyzing the factor loadings, determining the reliability and construct validity, followed by assuring the quality standards.

Table 2. Construct reliability and validity

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Community Engagement	0.771	0.797	0.848	0.536
Elderly Care Effectiveness	0.778	0.787	0.849	0.532
Funding and Budget Constraints	0.806	0.812	0.865	0.563
Influence of Interest Groups	0.767	0.772	0.852	0.592
Organizational Adaptation	0.810	0.826	0.871	0.580
Policy Prioritization	0.738	0.757	0.837	0.565
Regulatory Complexity	0.778	0.807	0.849	0.536

The Cronbach's Alpha and Composite Reliability are considered as the two most frequently used techniques, which determines the reliability of measurement of the scales. And the reliability indicators are acceptable in case if they are above the necessary cutoff of 0.70 (Fan, Shi, Yang, Sun, & Chen, 2024) In this study, the Composite Reliability statistics ranged from 0.837 to 0.871, while Cronbach's Alpha varied from 0.738 to 0.810, which indicates adequate internal consistency.

Structural Model Test

In next step we will estimate the hypothesized relationships to support the proposed hypothesis by analyzing path coefficients, t-values, and p-values in structural equation modeling.
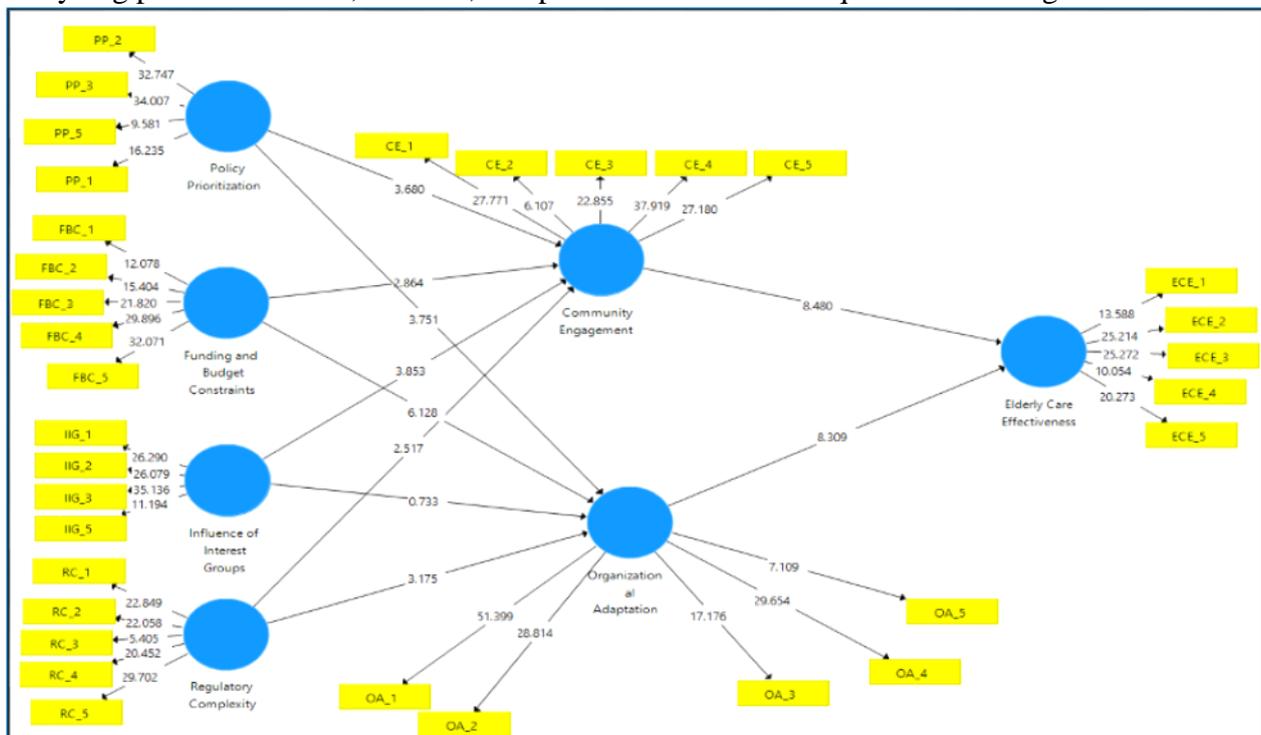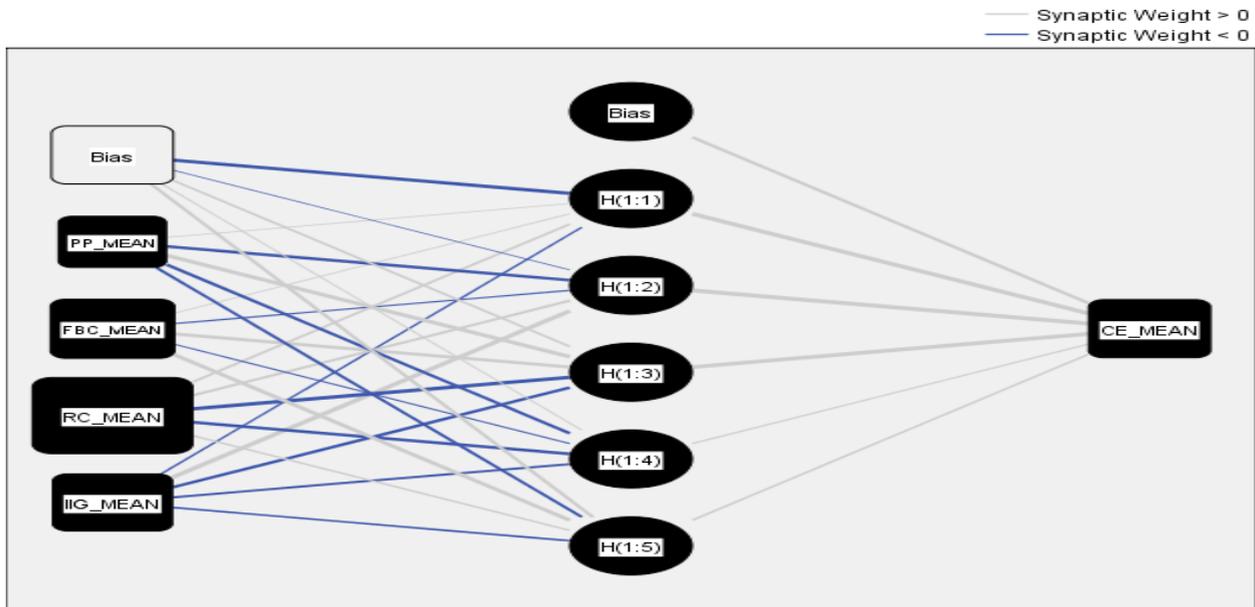

Figure 2: Structural Equation Model

Table 3. Hypothesis testing

Paths	β (O)	T-values	P-values	Results
Community Engagement → Elderly Care Effectiveness	0.387	8.480	0.000	Significant
Funding and Budget Constraints → Community Engagement	0.191	2.864	0.004	Significant
Funding and Budget Constraints → Organizational Adaptation	0.406	6.128	0.000	Significant
Influence of Interest Groups → Community Engagement	0.274	3.853	0.000	Significant
Influence of Interest Groups → Organizational Adaptation	0.049	0.733	0.464	Not Significant
Organizational Adaptation → Elderly Care Effectiveness	0.466	8.309	0.000	Significant
Policy Prioritization → Community Engagement	0.234	3.680	0.000	Significant
Policy Prioritization → Organizational Adaptation	0.246	3.751	0.000	Significant
Regulatory Complexity → Community Engagement	0.161	2.517	0.012	Significant
Regulatory Complexity → Organizational Adaptation	0.199	3.175	0.002	Significant

According to the results of this study, many factors of the political challenges like policy prioritization, funding and budget constraints, regulatory complexity and last regulatory significantly impacts both of community engagement and organizational adaption. Whereas, factors of interest group were significant on community engagement and their influence on organizational adaption was not significant as they showed values of $β = 0.049$, and $p = 0.464$. Furthermore, the findings of this study showed that the mediating role of both organizational adaption and community engagement plays essential role in significantly enhancing the outcomes of elderly care effectiveness. According to the results community engagement showed values of $β = 0.387$, and $p < 0.001$ and organizational adaption showed values of $β = 0.466$, and $p < 0.001$, which indicates their core importance in influencing outcomes of elderly care effectiveness. In summary, these results support the proposed framework of this study. While highlighting the important role of both community engagement and organizational adaption on effectively contributing elderly care effectiveness in the old age homes of Pakistan.
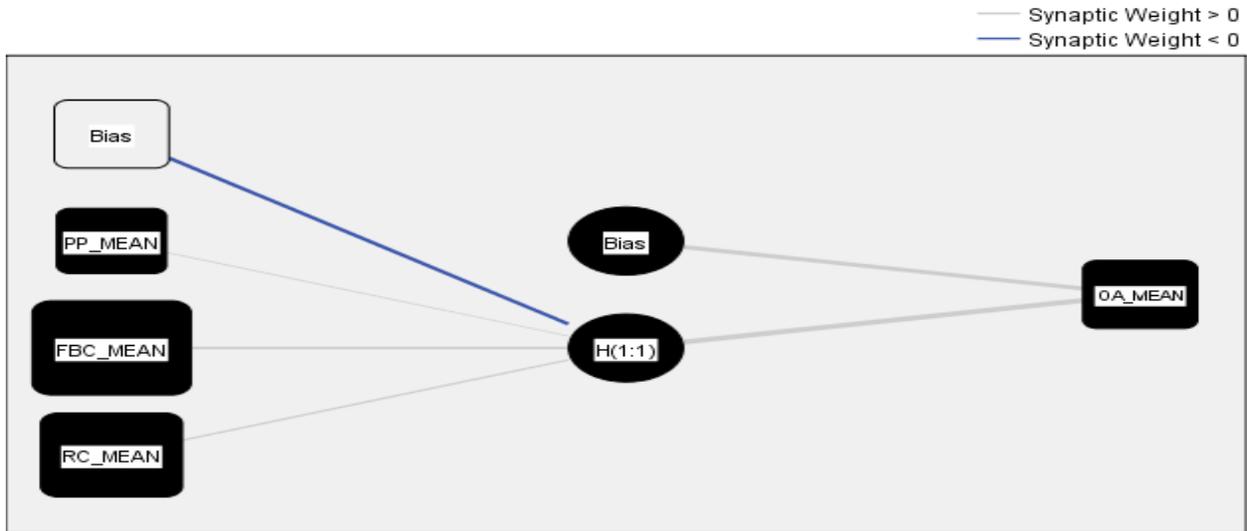
Artificial Neural Network Analysis
To further investigate the nonlinear relationships of the study. Only the statistically significant variable which are recognized by estimation PLS-SEM are used to develop ANN models. Three ANN models were developed based on different independent variables. In model A, policy prioritization, funding & budget constraints, influence of interest groups and regulatory complexity were treated as independent variable to predict community engagement. While in model 2, funding & budget constraints, policy prioritization and regulatory complexity were used to predict organizational adaption and lastly in model 3, both community engagement and organizational adaption were treated as independent variable and elderly care effectiveness is treated as dependent variable.
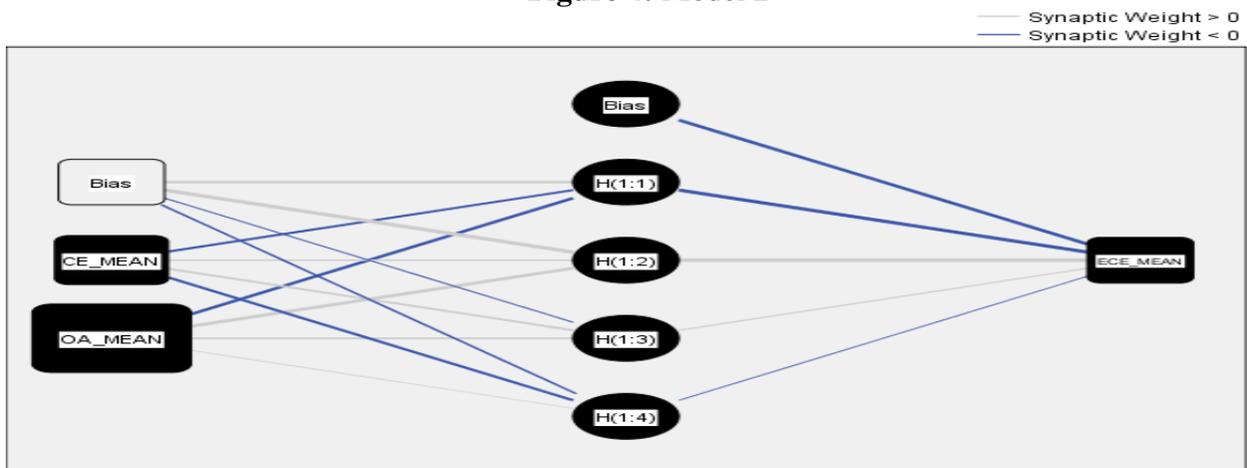
Figure 3: Model A

Figure 4: Model B

Figure 5: Model C

Furthermore, in the next step performance of model was estimated by measuring mean squared error (MSE) and root mean squared error (RMSE). According to the guidelines by Rufaizal Che Mamat, Azuin Ramli, Abd Manan Samad, Anuar Kasa, and Siti Fatin Mohd Razali (2024), lower values of RMSE indicates higher predictive reliability and accuracy. According to our results, the values of MSE for model A was 0.1504 and for RMSE was 0.3878, which highlights its stronger reliability and accuracy. In model B, testing error values for MSE was 0.1759 and 0.1496 for value for RMSE, which indicates that the predictive accuracy of model B is less as compared to model A. lastly in model C testing error values for MSE was 0.2884 and RMSE value was 0.5371. Overall, model A showed the stronger predictive performance among these three models of the study.

Table 4. Neural Network Model Performance (MSE and RMSE)

Model	Training MSE	Training RMSE	Testing MSE	Testing RMSE
Model 1	0.1915	0.4376	0.1504	0.3878
Model 2	0.1839	0.4290	0.1759	0.4196
Model 3	0.1779	0.4217	0.2884	0.5371

Lastly, relative importance for each independent variable of these three models was estimated. According to the results, in model A, regulatory complexity showed 100% of its normalized importance in predicting community engagement, funding & budget constraints showed 52.7% of its normalized importance and lastly policy prioritization showed only 31.2% of its normalized importance in predicting community engagement. Moreover, in model B, funding & budget constraints showed 100% of its normalized importance in predicting organizational adaption. While, regulatory complexity showed 80.4% of its normalized importance. Lastly in model C, organizational adaption showed 100% of its normalized importance in predicting elderly care effectiveness. Whereas, community engagement showed 57.2% of its normalized importance. These results highlight the ranking of each independent variable in predicting their respective outcome variable.

Table 5. Sensitivity Analysis

Model	Input Variable	Importance	Normalized Importance (%)
Model 1	PP_MEAN	0.135	31.2
	FBC_MEAN	0.228	52.7
	RC_MEAN	0.433	100.0
	IIG_MEAN	0.203	46.9
	PP_MEAN	0.198	44.5
Model 2	FBC_MEAN	0.445	100.0
	RC_MEAN	0.357	80.4
Model 3	CE_MEAN	0.364	57.2
	OA_MEAN	0.636	100.0

Discussion

This study investigated the influence of political challenges on elderly care effectiveness throughout the mediating role of both organizational adaption and community engagement in the context of Pakistan. The findings of the study highlighted that how political challenges impacts community engagement and organizational adaption which in turn enhance the elderly care services of their residents. The results of measurement model of this study confirmed the validate the contrast's reliability and validity for the proposed framework of the study. According to the results of this study factors of political challenges including policy prioritization, regulatory complexity and fudding and budget constraints significantly impacts both of organizational adaption and community engagement. These findings also supports the previous findings of Stoecker and Witkovsky (2023), which highlights that when organizations faces structural or political challenges they become involved,

empowered to improve their engagements with community. However, influence of interest group showed significant impact on community engagement only. This indicates that the influence of interested group may only enhance external collaborations, while their impact on organizational changes is may be limited.

Moreover, results showed that the impact of both organizational adaption and community engagement on was significantly positive on the outcomes of elderly care effectiveness. These results also support the previous finding of Liu and Yang (2025), which indicated that the engagements with community significantly improves the elderly care outcomes by providing older adult with better environment. Moreover, these results also supports the findings of Rosen et al. (2005), which highlights that capability of organization to adopt changes cab lead towards more better health outcomes for elderly population. Furthermore, to measure the nonlinear relationships and to more deeply investigate the results of PLS-SEM, ANN analysis approach was also employed. According to the predictive accuracy analysis of proposed model. Model A showed strongest predictive performance, which indicates that the factors of political challenges are more effective in predicting the outcomes of community engagement as compared to organizational adaption. Moreover, sensitivity analysis was also estimated and according to their results of model A, regulatory complexity showed 100% of its normalized importance in predicting outcomes of community engagement. While in model B, fundings and budget constraints was the most important variable in predicting outcomes of organizational adaption. Lastly in model C, organizational adaption showed 100% of its normalized importance in predicting outcome of elderly care effectiveness, which highlights the essential role of organizations c adaption capability in enhancing elderly care services.

Summary and Conclusion

This study investigated the influence of political challenges in enhancing elderly care services by the mediating role of both community engagement and organizational adaption in the context of Pakistan. The findings to this study showed factors of political challenges such as policy prioritization, regulatory complexity and fudding and budget constraints significantly impacts both of community engagement and organizational adaption. While influence of interested group showed significant impact on community engagement only. Furthermore, the findings of this study also highlight the essential role of both community engagement and organizational adaption in enhancing the elderly care effectiveness, while organizational adaption being most influential factor in the old age homes of Pakistan. The results of this study highlights that the old age homes in Pakistan can effectively improve their quality of services for their elderly residents by actively participating in the activities of community and by collaborating with the stakeholders. Furthermore, they can also enhance their services for elderly residents by enhancing their adaption capabilities to address internal or external environmental changes. Overall, the combined results of both PLS-SEM and ANN support the proposed framework of this study. Policymakers or manager should make clear policies to enhance their engagements with community and stakeholder and to improve their adaption capability to provide high quality improved services to the residents of their old age homes.

Policy Implications, Limitations and Future Directions

These results of this study provide some valuable insights for the policymaker and manager who are working the context of old age homes of Pakistan. According to the findings of this study improving organizational adaption capability and strengthen enjoyments with community are essential for enhancing elderly care effectiveness. Policymakers and managers should make and implement clear policies to significantly increase the engagement of old age home with local communities and stakeholder and to improve their adaption capability to create flexible management structures to easily deal with both external and internal changes of environment. However, while providing implication this study also has some limitations. First, the study used a cross-sectional technique, which may limit the ability to measure changes over time. Second, its main focus was only on the old age homes of Pakistan, which limits its finding to other country has other environmental structures. Lastly, future research could expand this study by employing longitudinal research design to measure its changes over different time period. Additionally, future research could also expand this study by exploring other mediating variables or can even add moderating path by including technological adaption

capability or impact of emerging technologies.

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