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An Exploratory Study on the Middle Path Approach to Societal Resilience in Bhutan: Balancing Tradition and Modernity

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Abstract

As Bhutan experiences the digital age, the complexities of modernization have intensified climate-related vulnerabilities and challenges the nation's traditional social fabric. Driven by the philosophy of Gross National Happiness (GNH), Bhutan is globally recoginized for its protective social-cultural policies. However, a significant gap remains in systematically balancing indigenous knowledge with modern strategies through a Middle Path framwork. Employing a mixed -methods design, the study utilized purposive sampling to engage 51 disaster management officials including, local leaders and and NGO representatives. Thematics analysis and decriptive statistics reveal that while indigenous knowledge holds immese potential for localized resilience, the lack of cohesive frameworks and bureaucratic barriers hampers systematic integration. This paper argues for robust, culturally anchored acvocacy programs to build societal resilience, offering actional insights for community leaders and policymakers.

Keywords— Community resilience, modernization, middle path, disaster management, traditional knowledge

1 Introduction

The concept of societal resilience in Bhutan has gained paramount importance in the 21st century, marked by rapid globalization and volatile climate patterns. Rooted in socio-ecological systems theory of Holling[23], resilience refers to a system's capacity to absorb shocks while retaining its core structure and institutional identity. Bhutan's approach is distinct, driven by its foundational governance philosophy: Gross Natioal Happiness(GNH). GNH ensures that economic development does not compromise cultural preservation or enviromentla integrity as Bhutan's indigenous values and happiness are deeply intertwined with socio-economic development, without discarding modern aspirations[3][10][14]. Operationally, GNH fosters societal resilience through its community vitality and ecological doamians, which institutionalize social safety nets and communal stewardship. Bhutan's understanding of societal resilience is multifaceted, including the policy frameworks,

modern practices, and traditional knowledge systems, which is distinct from most other country's approaches. Despite these proactive policies, Bhutan faces escalating localized risks over the past few years. For instance, climate-induced disasters threaten its ecological equilibrium, while rapid modernization pressures risk eroding the historic communal values that have organically sustained the society for centuries. Embracing modern development initiatives and commitment to preserving cultural heritage and values make Bhutan a riveting context for examining resilience.

This study explores the Middle Path approach toanalyze how Bhutan can preserve indigenous safety nets while embedding contemporary disaster risk reduction frameworks.The core problem is the absence of an operationalized policy structure that binds dual systems. By investigating the intersection of traditional values and modern technological tools, this paper establishes a pathway toward synergistic, long-term societal resilience. For Bhutan, such a framework is necessary for protecting traditional wisdom alongside modern technological advancements to design dynamic and strategic societal resilience.

Using a mixed-methods framework, this study synthesizes qualitative thematic inquiries with quantitative data gathered from targeted stakeholders. Ultimately, it provides a pragmatic roadmap for policymakers to build an inclusive model capable of of navigating future systemic uncertainties.

1.1 Problem Statement

Despite Bhutan's known for Gross National Happiness (GNH) and proactive policies and commitment to promoting societal well-being through one of the GNH pillars[10][14][17][18], the country faces significant challenges in achieving resilience amid climate change impacts [6][7], and rapid modernization [21][22]. Bhatta [2] Dorji [6] pointed out the currently existing gap that historically, community resilience has been dependent upon traditional knowledge and practices, however, contemporary resilience strategies undermine Bhutan's resilience capability to adapt effectively to climate-related challenges. Not integrating traditional values with modern resilience systems is a critical risk and disconnection as it overlooks the cohesive frameworks on sustainability and climate change mitigation plans. Moreover, it limits Bhutan's capacity to leverage its traditional and cultural values [2][8][13]. This study aims to underscore how to synergistically combine modern and traditional practices to fortify resilience in Bhutanese society through the development of a balanced middle-way approach.

1.2 Objectives

- To synthesize existing literature on societal resilience in Bhutan, highlighting a balanced integration of tradition and modernity.
- To identify key themes, gaps, and trends in research on Bhutan's societal resilience strategies and suggest recommendations for achieving a balanced approach to enhancing societal resilience
- To evaluate the effectiveness of combining traditional knowledge with modern practices by leveraging statistical testing

1.3 Researchable Questions

- In what ways do traditional Bhutanese practices and belief systems foster resilience within local communities?
- What contemporary resilience strategies are being adopted in Bhutan and how are these perceived by disaster management stakeholders?

- Why is balancing tradition and modernity critical to improving societal resilience in Bhutan?
- What are the key challenges Bhutanese communities face when integrating traditional and modern approaches to resilience?
- How do different agencies, including government agencies, NGOs, and local communities, perceive and engage with traditional practices in the context of building resilience?

2 Literature Review

Social resilience is defined as the capacity of communities to adapt, recover, and thrive amidst socio-economic and environmental disruptions[9]. Globally, literature advocates for embedding resilience within everday institutional and educational paragigms, fostering holistic developmental processes that prepare societies for future shocks[12][15]. In Bhutan, this disclourse is directly framed by intensifying climate liabilities and the structure transitions of modernization[16].

The first theme centres on societal resilience frameworks, highlighting the strategies of communities to plan, mitigate, adapt and recover from challenges. Kothari [8] underlines the importance of integrating Indigenous knowledge systems and cultural values within resilience strategies to support communities during times of difficult situations, while Adger [1] also supports the above frameworks of societal resilience. Similarly, in Bhutan, the concept of societal resilience is well captured in the Gross National Happiness (GNH), which centres well-being in development policies[17]. Moreover, the GNH framework guides Bhutan's developmental programs through its nine domains, confirming that economic development does not come at the expense of cultural preservation[14]. It also aligns with global sustainability efforts, such as the Sustainable Development Goals (SDBs) [19]. However, contemporary literature presents a clear tension: while GNH provides an ideal philosophical foundation, existing studies rarely evaluate how these static values adapt when confronted with real-time digital expansion and demographic shifts.

Bhuatnese traditional safety nets are rooted in Buddhist principles and communal ecological duties. As a result, the community's resilience is massively influenced by such practices. For instance, Bhatta [2] coins that traditional farming practices boost resilience to climate change shocks, while Thapa Bhandari [13] also outline the key roles of the community's participation in preserving nature and its resources. Moreover, Meenawat Sovacool [9] also point out that indigenous knowledge such as community rituals, forest management, and agriculture practices play a critical role in societal resilience because such practices promote social cohesion and environmental stewardship. Their contributions seemed significant in the promotion of ecological knowledge to enhance the capacity of community resilience, nonetheless, a contradiction persists within the literature. While reseachers validate the ecological advantage of indigenous resource management, they often isolate these system, treating them as historical artifacts rather than active components that can be with modern technical strategies.

Modernization presents a dual-imapct matrix in Bhutan. Rapid, unplanned development risks fracturing traditional social bonds and diminishing community vitality[21]. Conversely, Dorji [5]opposes that to have a more balanced modernization's dual impact, modern technologies can provide effective solutions to local challenges. As a result, this proves that the difficult challenges or complexities involved in integrating traditional and modern practices still need adequate focus.

It is believed that the integration of modern and traditional practices has emerged as a pivotal theme in enhancing societal resilience. Bhutan's development philosophy is deeply rooted in Buddhist principles and cultural values, suggesting valuable appreciable insights into realizing societal resilience in this fast-changing world [10]. And for enhancing societal resilience, Bhutan's disaster management strategies have also emphasized the need to integrate traditional knowledge with modern practices [21]. Further, the case studies demonstrated by Dorji[22], the merging of traditional practices and modern technologies highlighted a successful outcome, recommending that

such a synergistic approach can boost community resilience. In addition, recently, Bhutan has embarked on modern technologies for resilience like renewal energy projects, climate-smart agriculture, and GIS for disaster management as a part of adaptive capacities to mitigate the challenges [16]. Besides, Bhutan has National policies, such as Bhutan's Climate Change Policy and the National Environmental Protection Act, which aim to build one of the best societal resilience strategies. And Meenawat Sovacool [9] coin that implementing such existing policies may be hindered by bureaucratic processes, and resource constraints, and deprive of collaboration among the stakeholders. However, most studies lack empirical evidence on the effectiveness of integrated approaches, suggesting the need for extra efforts to ascertain good standards and approaches.

Exploring literature gaps is the utmost aspect of research for circumnavigating the understanding of societal resilience in Bhutan. As shared, most literature reveals the limitations of comprehensive frameworks that incorporate traditional and modern resilience strategies, including empirical studies focused on practical implementation and pragmatic evaluations. Likewise, there has been an unexplored correlation between policy frameworks and community resilience strategies in Bhutan.

For enhancing societal resilience, designing a robust approach that supports synergies between traditional and modern practices is pivotal in our society. With the involvement of communities and developing strategies that respect traditional values while considering modern innovations, education, policy support, community engagement, and training programs are identified as the main enablers that promote a balanced model of resilience [4][20]. Though this study signifies the importance of community participation, it might not capture the whole practical challenges of implementing such strategies.

The thematic literature review shows the diverse insights and perspectives of building societal resilience in Bhutan, focusing on the need, refining and significance of future research to prioritize empirical evaluations. Crucially, empirical validations regarding the structural efficacy of theses combined models remain scare, highlighting an evident research gap that this study seeks to address.

3 Methodology

This study adopts an exploratory, mixed method approach to examine the structural opportunities of a balanced resilience framework. To capture expert insights, institutional stakeholders were selected via purposive sampling across federal, non-governmental, and local entities, who possessed relevant knowledge and experience in monitoring societal resilience. This process confirmed that the opinions collected were aimed towards fulfilling the research objectives. The final sample comprised 51 active officials: 6 from the National Disaster Management Division, 9 from Thromde(Municipal) administrations, 26 from the Desuup team(community volunteers), 5 from registered NGOs, and 5 from Gewog(local government) administrations.

Data collection was executed through a structured online administered via Google Forms over a two-months window. The tool featured open-ended items to gather qualitative perspectives on traditional institutional barriers and closed-ended Likert-Scale questions to measure perspective of modern technology. A preliminary pilot test was run with a small control group to refine semantic clarity and streuctural flow.

Regarding research's ethical considerations, all respondents were informed of their right to withdraw from the survey at any time without any negative consequences. Moreover, respondents were assured of the confidentiality and anonymity of their responses to encourage candidates.

Quantitative tracking was executed via spreadsheets and R to compute descriptive frequencies. Qualitative responses underwent manual open coding to map repeating themes. These codes were iteratively grouped intio axial themes, cross-referencing qualitative sentiments with statistical patterns to ensure descriptive alignment.

4 Results and Discussion

4.1 Demographic Insights

Analysis shows a highly experienced sample: 50% of respondents possed 11-15 years of active service in disaster response, while the remaining cohorts were split equally between 1-10 years(25%) and over 15 years(25%). Geeographicall, the sample captured diverse regional dynamics: 43% resided in the Western region, 24% in the Southern region,24% in the Eastern region, and 9% in the Central region. This demographic spread ensures that the insights reflect varying regional climate profiles and administrative capacities.

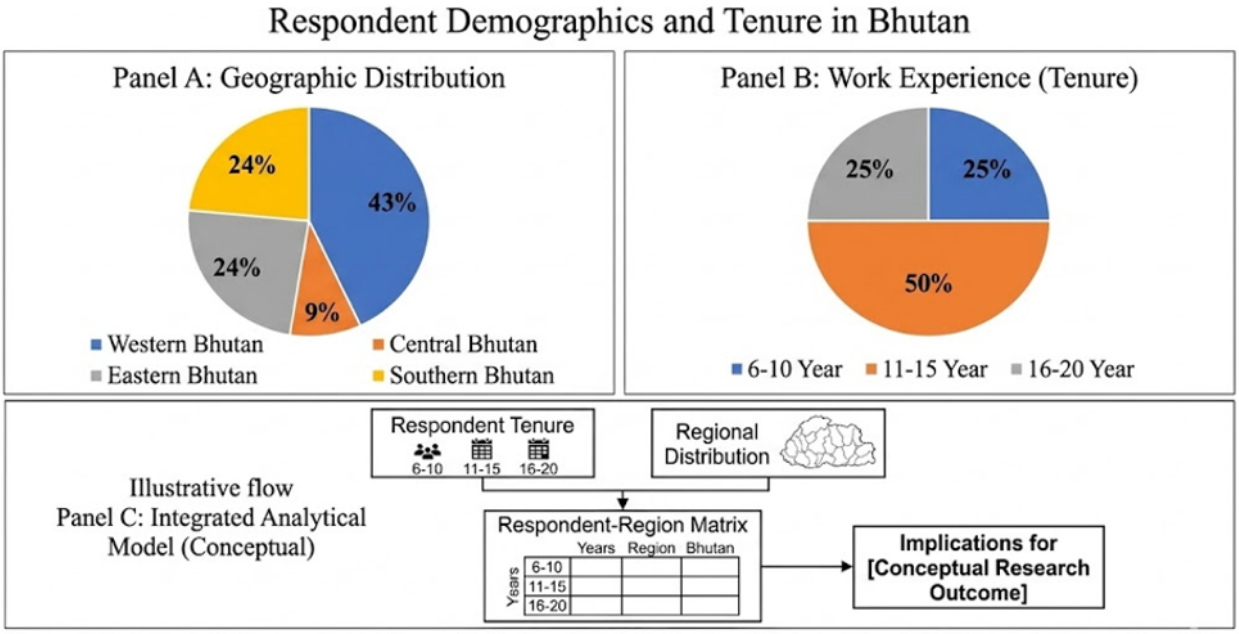


Figure 1: Integrated Respondent Characteristics. Penal A: Regional origin; Penal B: Tenure in years and Penal C: A conceptual model for integrating respondent tenure and region for downstream analysis

4.2 Perceptions on Integrating Traditional Knowledge

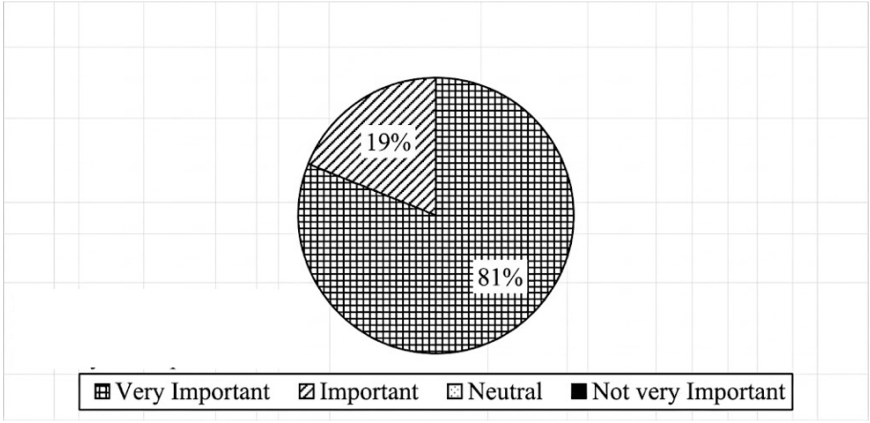


Figure 2: Perceived Importance of Variables for Study Perticipants

The response rate (81%) for the importance of maintaining a balanced approach between tradition and modernity in achieving societal resilience is illustrated in Fig. 3. This indicates that the respondents from the National Disaster Management, Desuup Office, NGOs, and Local Governance recognized the traditional knowledge as a vital component of societal resilience. This response aligns with [17], who highlights that GNH emphasises the importance of tradition and culture, which acts as a foundation for resilience strategies. Most respondents acknowledged that the preservation of cultural heritage and indigenous knowledge systems not only contributes to the country's disaster management strategies but also enhances social cohesion during difficult times.

4.3 Evaluation of Modern Technlologies

Studies by Bhatta [2] and Thapa Bhandari [13] highlight those traditional practices contribute to the country's disaster management strategies for ensuring societal resilience. This literature corroborates the current findings as most respondents believe that providing Indigenous knowledge and techniques for coping with natural disasters and improving community cohesion and collective responses during times of crisis is of utmost importance as shown in Fig. 3. However, respondents also agreed on concerns relating to the deterioration of traditional practices due to the rapid modernization as echoed by Wangchuk [21], who asserted the dilution of cultural values. This response indicated that respondents valued traditional practice as an important factor for overall societal resilience, particularly in disaster management. Supported by many respondents that integrating these practices would lead to strong strategies as illustrated in the following figures. As a result, the hypothesis is supported because there is a positive correlation between the integration of modern and traditional practices to improve resilience.

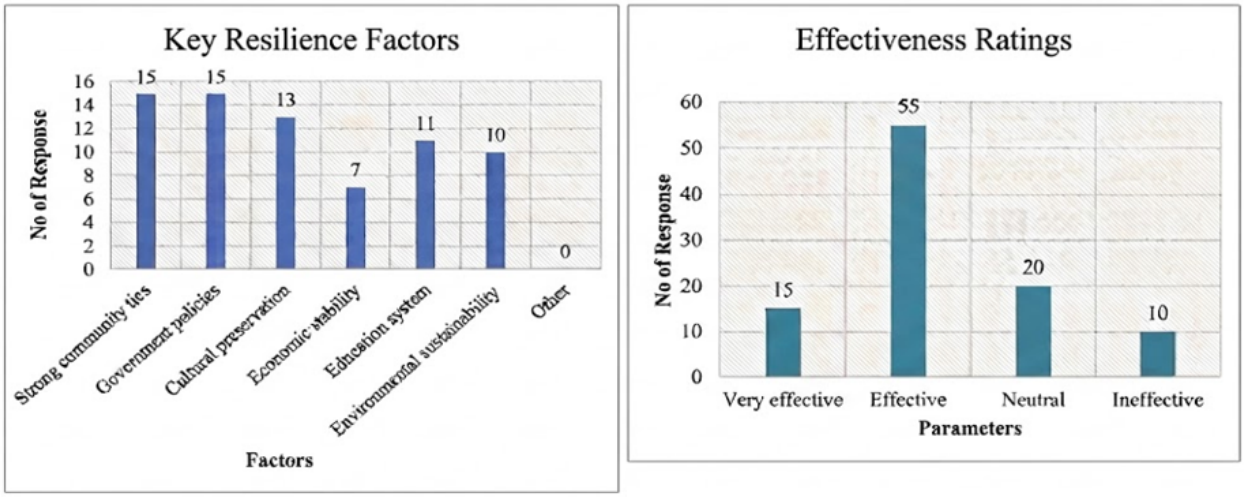


Figure 3: Survey on Bhutan's resilience factors and disaster management Effectiveness

4.3.1 Challenges of Modernization

Schunck et al., [11] noted the key global challenges such as climate change, pandemics, instability and finances, which are considered as the severe challenges of modern societies. The understanding of modernization's impact on societal resilience has been validated through one of the survey questions as many respondents viewed the benefits of modern technologies in mitigating disaster responses (indicated in Fig. 3). At the same time, they also acknowledged the challenges and conflicts of modernization with traditional values, leading to community disengagement for enhancing societal resilience. This finding aligns with Dorji [6], who articulates that modernization must be explored

in detail to avoid undermining past practices and values. In addition, Dorji [5] also noted in their literature that critical attention is required for the integration of traditional and modern practices.

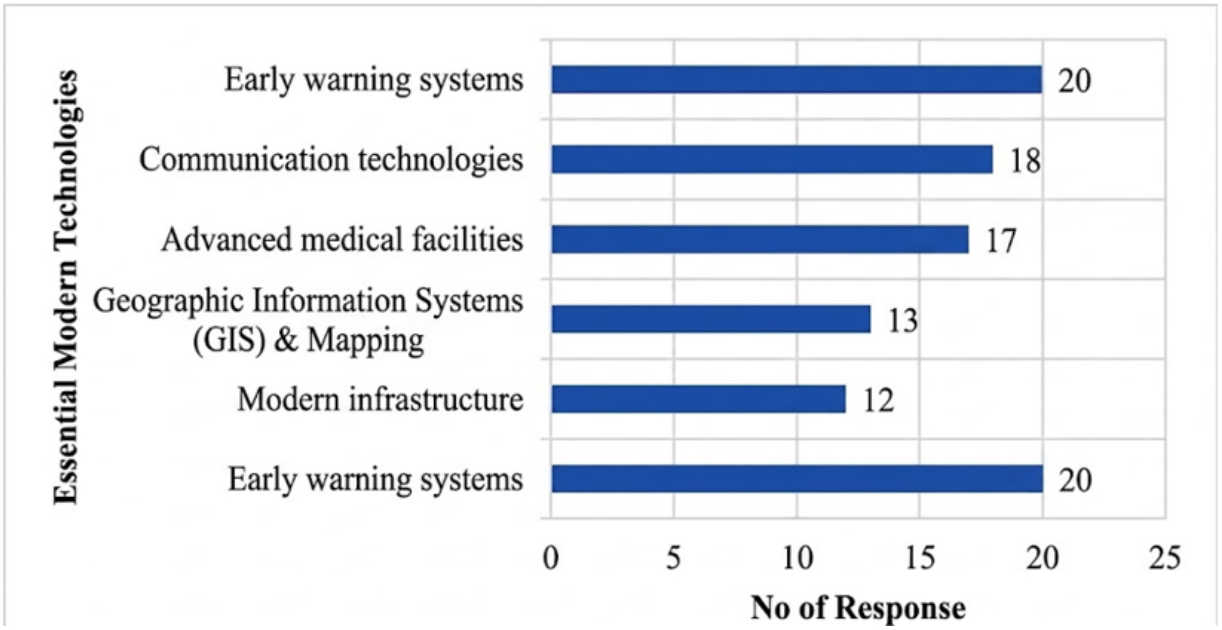


Figure 4: Essential Modern technologies for disaster management in Bhutan

Although the finding shows that modern methods such as early warning systems and infrastructure are effective (a response rate is 15% is very effective, and 55% is effective) in managing disasters (shown in Fig. 4). Many respondents say that modernization often hijacks the traditional practices, weakening community bonds and discourage societal resilience. The hypothesis is valid as this finding indicates that there is a negative impact on age-old practices due to modernization.

4.4 Framework Analysis: Tradition Vs.Modernity

One of the important statements from the surveys is the call for a cohesive framework that combines both traditional and modern resilience strategies. Most respondents stated the need to augment existing policies that diagnose traditional values and practices while entrenching modern strategies. This shows the shortcomings of the existing literature, which is also an indication of a lack of organized framework for integrating modern and traditional approaches in Bhutan. As a result, this finding corroborates with the literature of Kothari [8], who coined the discussion on community-based conservations with the communities as the essential resilience strategy required for communities.

This literature aligns with the survey respondents on the need for collaborations and networking forums to exchange ideas, resources and knowledge among relevant stakeholders from diverse sectors. Such a forum should aim to design an inclusive cohesive framework for societal resilience building. The response rate shows that there is a poor combination of traditional and modern approaches in the local communities in Bhutan, limiting effective responses like climate-related challenges. This finding aligns with the hypothesis on the absence of a cohesive framework that hampers the community's resilience efforts. Therefore, the below figure no.5 suggests a social cohesive framework to design effective strategies, combining modern and traditional approaches.

The figure 6 shows that language and social customs were identified as the most crucial aspect sof Bhuatnese culture for resilience, each receiving 17 repsonses, followed by architectural sytles(15, festivals and religious practices(13 each), and traditional dress(12), while no responses were recorded under "other". These findings indicate the predominance of intangible cultural dimensions over mate-

rial or ceremonial elements, with communication shared identity emergining as central to sustaining resilience.

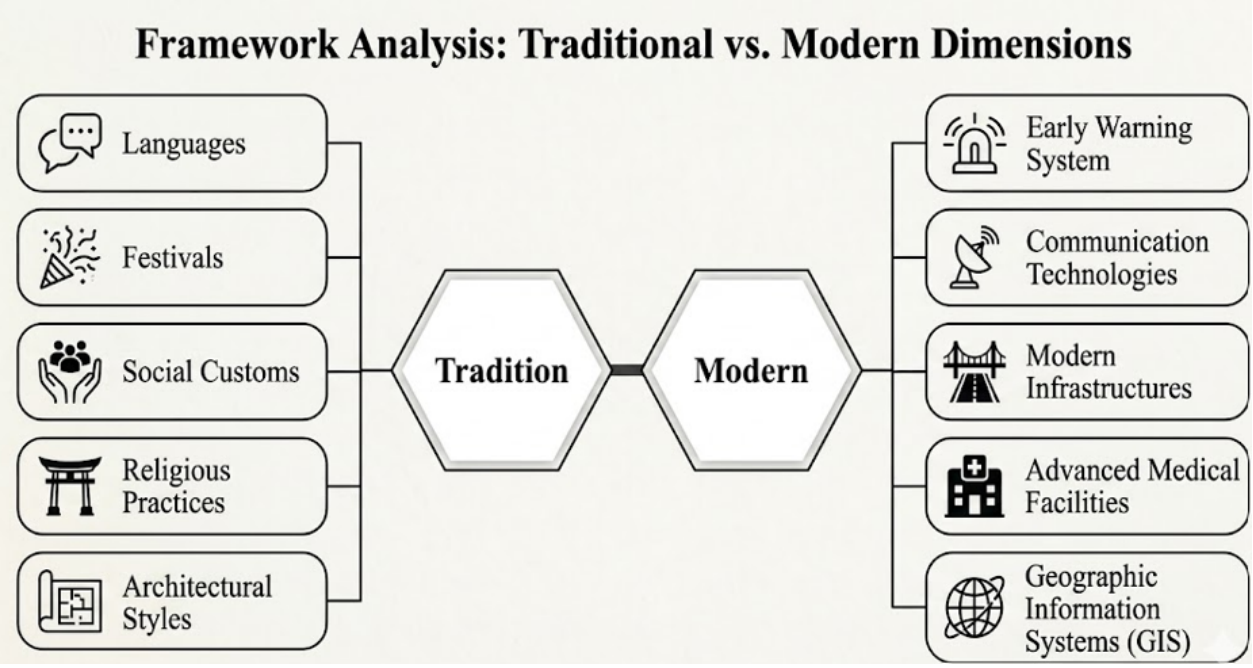


Figure 5: Comparison of traditional cultural elements and modern technology/infrastructure developments within a single analysis framework

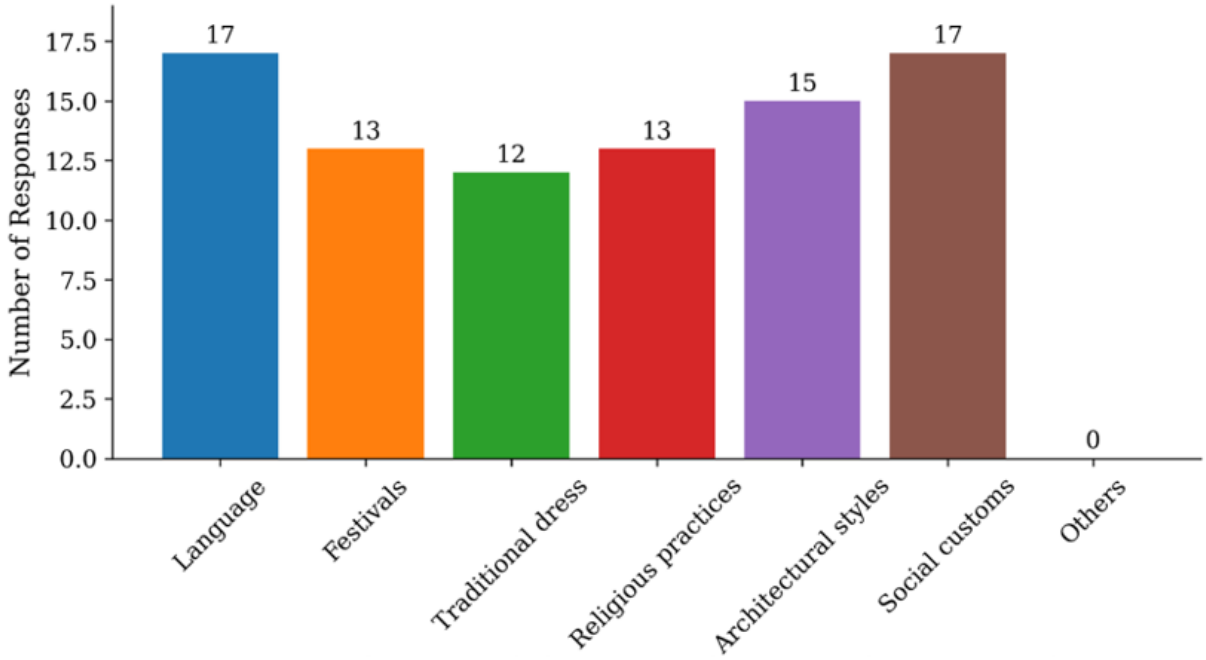


Figure 6: Crucial aspects of Bhutanese culture contributing to resilience

In the discussion, this distribution can be interpreted as aligning with Bhutan's GNH framework, where cultural preservation and social harmony are integral to sustainable well-being, and with resilience theories that emphasize the adaptive capacity of intangible assets. The high response

rate in language and customs suggest policy and educational implications, such as reinforcing these practices through community programs and curricula, while the moderate emphasis on dress and architecture indicating the complementary role of tangible heritage. Lastly, theabsence of responses in the "other" category futher highligts that listed aspects comprehensively capture the perceived contributors to resilience, though future research could navigate regional or generational variations to deepen understanding.

4.5 Additional Insights from Respondents

From the open-ended question, it reveals that a holistic approach to disaster management is critical in Bhutan. The integration of traditional knowledge with modern practices, involving local communities would create robust community-based disaster risk management for proactive preparedness, response, and recovery. For this, most respondents highlight the significance of organizing workshops and training programs that capture both scientific methods and indigenous knowledge. Moreover, the respondents also call for awareness campaigns on disaster risks and response measures to educate the public including marginalized groups like disabled and elderly groups[4]. In addition, the respondents emphasize the need for a holistic framework or disaster management policies to improve accessibility for all stakeholders through collaboration among the government and public sectors. Such initiatives would enhance the quality utilization of resources, expertise and innovation. They also recommended installing enough early warning systems as a part of proactive disaster preparedness to support communities for any potential hazardous challenges. Moreover, actionable training programs that blend traditional practices as indicated in the figure no.6 with modern disaster management techniques are also recommended for all stakeholders, in particular for the grassroots level officials. In building a resilient and adaptive disaster management system in Bhutan, these combined practices framework are highlighted to bring a major social security in the country.

4.6 Research and Policy Implications

The survey respondents stated several recommendations for implementing a balanced Middle Path approach to ensure societal resilience. Increasing awareness programs about traditional practices, community empowerment, leveraging modern technologies, collaborations and communication among the relevant agencies in decision-making are the key suggestions proposed by the respondents. The data implies that resilience policies must move away from top-down structures. Effective management requires a formalized, multi-tiered governance model where grass-roots indigenous knowledge is structurally lined with central technical teams. The findings also indicate that modern warning system perform better when integrated with local community network. For instance, translating technical GIS and meteorological data into dialects and disseminating it through traditional community leadership channels significantly improves community responsiveness and evacuation compliance. As a result, incorporating traditional knowledge ensures that vulnerability assessments account for marginalized demographics, such as isolated elderly populations or individuals with disabilities. This creates a more comprehensive and equitable framework for disaster response. The finding also aligns with the existing literature coined by Dorji Dorji [5][6], where they emphasized the role of community participation and education programs in developing resilience strategies. The focus on strategies for implementation depicts the study's objective to identify key themes and trends in resilience practices.

5 Limitations and Future Research

Given the purposive sampling design, the findings reflect the perspectives of institutional managers and community volunteers, and may not fully capture the varied viewpoint of rural community

members. This study is exploratory, it has some limitations that should be acknowledged. Firstly, despite the survey respondents being from diverse agencies, the sample size is small with only 51 respondents, which also relies on a purpose sampling technique, it may not represent the whole perceptions and experiences of each organization engaged in resilience planning in Bhutan. As a result, it might overlook the voice of local community members and other relevant stakeholders.

Secondly, primarily data gathered through the respondents via online survey and the information assembled from the existing literature, may lack generalizability, as the conclusions may not apply to all sections of the societies within Bhutan. Moreover, reliability of the data may also be subject to personal biases, as the responses from the respondents might not have taken the survey seriously, leading to inaccuracies and misinterpretations of traditional and modern resilience concepts.

In addition, the absence of comparative analysis with other countries or communities encountering similar shortcomings in resilience building might limit the broader conclusions on modern and traditional practices. Similarly, the study excludes and not fully external factors like political stability, economic situations, legal conditions and environmental challenges, which may have an impact on implementation of the resilience strategies.

Future research should focus on longitudinal designs to track the long-term efficacy of integrated resilience models across different distrcts in Bhutan. Comparative studies with other Humalayan nations facing similar modernization pressures would also help validate and refine Bhutan's Middle Pathe framework.

6 Recommendations

Most findings highlighted the requirement of a robust resilient model that encompasses both tradition and modernity, the policymakers in Bhutan may build a robust resilient society that respects traditional knowledge and modern strategies by designing a holistic framework for better resilience capacity. As revealed in the research, the framework may involve diverse stakeholders including the community input and customised to local contexts, upholding relevance and effectiveness.

For designing a balanced Middle Path Model, resilience planning and implementing programs are key exercises that consider the involvement of the community and other key stakeholders. Workshops, forums, and participatory methods are encouraged to contribute valuable traditional knowledge in the implementation process. For instance, policymakers may recognize traditional practices within disaster risk reduction policies while drafting the guidelines or integrate these practices alongside contemporary approaches to ensure societal resilience. Moreover, a massive awareness program on the adoption of traditional practices is indispensable in resilience, which may be promoted through academic institutions, social media and community initiatives. Future research may include longitudinal studies to study the long-term impact of the middle path approach (combined strategies of traditional and modern resilience approaches) in terms of efficacy.

Finally, the researcher would propose to create an enabling environment among the government agencies, NGOs, and local governments for sharing good practices, resources and knowledge that can establish a healthier resilient society in Bhutan. By executing these recommendations, Bhutan can empower its traditional legacy and resilient potential in the face of any challenges and uncertainties, especially natural hazards, calamities and risks

7 Conclusion

The study indicates the significance of mutually inclusive between modern and traditional resilience strategies in Bhutan. The survey respondents on the need for a cohesive framework that leverages Bhutan's traditional knowledge alongside modern innovations is positive, indicating the inevitability of adopting a balanced middle path approach for building the resilience of Bhutanese society. The

finding also outlines those traditional practices have the potential to enhance community resilience, in the context of advanced development and climate change challenges. In addition, the finding has shown that if the policymakers acknowledge the traditional practices through intensifying the community engagement, the resilience planning would lead to better outcomes.

The study contributes to the increasing body of literature on the integration of tradition and modernity for building robust societal resilience, considering empirical insights into opportunities and challenges in Bhutan. The finding also indicates that Bhutan lacks a holistic approach that harmonizes traditional knowledge and modern innovation limits its capacity to effectively address resilience challenges. For that, future research to explore both traditional and modern strategies in detail, focusing on developing practical models is recommended as this would align inclusive societal resilience model.

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