

Resilience Through Adaptation: Examining the Interplay Between Adaptive Capacity and Organizational Resilience in Public Sector Organizations

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Received: 09-03-2025	Revised: 10-04-2025	Accepted: 07-05-2025	Published: 18-06-2025
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ABSTRACT

Adaptive capacity is also emerging as a significant factor defining organizational resilience, especially among the bodies in the government sector working in unpredictable and scarcity-prone conditions. This paper forms a part of the doctoral dissertation and is aimed at investigating the conceptual and functional interconnectivity between the notion of adaptive capacity and organizational resilience with reference to the Punjab Agriculture & Meat Company (PAMCO), which is a prime state-owned Agri-livestock enterprise in Pakistan. Based on a comprehensive analysis of scholarly literature, governance (institutional) reports, and structures, the paper has shown that there are five other key dimensions, including governance structures, leadership adaptive capacity, mechanisms of innovation, learning of institutions, and coordination among stakeholders, which form the basis of resilience-building activities. As emphasized in the study, an adaptive capacity can be used to enable public organizations to predict, absorb and respond to internal and external shocks without jeopardizing their strategic goals through institutional anchoring. The argument combines theory with policy/practice guidelines, providing a flexible approach to the reform of organizations of the same structure in the developing countries. With a clear understanding of the constraints that exist with regard to narrative synthesis, the paper nevertheless offers new conceptual clarity and sector-specific recommendations, which add up to the debate on the topics of the approach to public administration and organizational theory and as well as development policy. It is envisaged that research in the future will be conducted to carry out an empirical or cross-sectoral study with each and integrate it with digital government models to enhance resilience-driven reforms within the governance of the public sector.

Keywords: Organizational Resilience, Pakistan, Governance

INTRODUCTION

At a time when environmental, economic, and geopolitical risks, as well as the uncertainties surrounding them, are piling up, there has never been a more opportune time to consider ways of ensuring that, despite change and shocks, public sector organizations are able to cope and continue to operate effectively (Afshar, 2023). In their key governance roles and vital service delivery, these entities have to operate in complex, rapidly evolving environments without failing in terms of trust, transparency and efficiency in operations (Afshar & Shah, 2025). This is even more crucial to the developing nations, where the lacking in institutional capacity, political instability, as well as the shortages of resources increase the susceptibility of the entities in the public sector. In this context, organizational resilience has become a

center of attention as a theory that allows the processes of shock-absorption, reorganization, and the resumption of mandate delivery by the public institution during any crisis (Alibašić, 2025; Prayag et al., 2024).

The core of organizational resilience is the construct of adaptive capacity, the ability of an institution to adapt to dynamic surroundings both internal and external by learning, innovation and knowledge management adapted expression of a flexible governance (DeCaro et al., 2025). In addition to the overall capacity to resist and recover, resilience is characterized by adaptive capacity as the driver of change and persistence, which gives the organizations with the means by which the strategies are restructured, the resources reoriented, and the challenges appropriately met (Vallury et al., 2022). Notwithstanding its conceptual implications, the interconnection between adaptive capacity and organizational resilience has only been understudied within the particular context of operations of public sector organizations in the developing world, especially those which are active participants in the agribusiness and food security sectors (Alibašić, 2025).

This paper frames its study in the institutional environment of the Punjab Agriculture and Meat Company (PAMCO) which is a major public sector organization being part of the Livestock Sector (Afshar & Hussain Shah, 2025). To build a sustainable red meat value chain, PAMCO was founded, which is significant to the development of the meat business in Pakistan as it assists livestock farmers, meat processors, exporters, and other stakeholders in the value chain. It is also a service-oriented public company to enhance food safety, exports, and rural economic enhancement (Afshar & Shah, 2025).

The relevance of the study is in the contribution to the concept of how adaptive capacity can be used in organizational resilience in such a public sector Agri-livestock company as PAMCO, which functions in the sphere of agriculture, trade, and rural development (Afshar, 2023). Considering the strategic necessity of expanding halal meat exports and modernisation of its agriculture and livestock enterprises in Pakistan, such institutions as PAMCO have to face the volatile environment of the global standards of trade, the shifting environment of the regulations and the issues of domestic governance. The most recent crises in the world (the COVID-19 pandemic, outbreaks of livestock diseases, and disruptions in the supply chains) have shown the weakness of the system and demonstrated the necessity of adaptive mechanisms of governance (Xie et al., 2022; Z. Yang et al., 2025).

Furthermore, there are escalated expectations by the people in terms of better service provision, improved transparency, and effective design of state investment in agriculture (Nugroho et al., 2022). The performance of PAMCO has a direct impact in the rural populations, food security and exports. In this regard, an enhancement in its adaptation capacity is not only an organizational issue but a socio-economic need. This relevance, however, is not accompanied by extensive descriptive study inquisition on this topic on how adaptive capacity can work as a resilience input in such sector-based publicly owned companies in the developing settings.

Literature on organizational resilience has continued developing over the past years, and nowadays, much attention has been given to the implementation of the concept in the public sector. Resilience has been discussed as strategic in empowering governments to cope with any form of disruption including natural calamities as well as political unrests (Hollaar et al., 2025). Similar debates regarding adaptive capacity, mainly based on climate change and ecological systems literatures, have found their way into organization theory as evidenced in the works of scholars who explain the concept of adaptive capacity in the context of knowledge absorbance, responses of the stakeholders, as well as diffusion of innovation (Alibašić, 2025; Vallury et al., 2022).

Nevertheless, the majority of the studies stick with macro level of systems or refer to Western institutions and pay minor attention to the sectoral and meso level, that is, the public agencies in the Global South (Brooks et al., 2005). In scarce literature on the subject of public enterprise in the agricultural or livestock sectors, adaptive capacity is generally cited in the context of policy responsiveness or responsiveness to technology, and never internally in the organization-related factors and only rarely in connection to resilience outcomes (Madi Odeh et al., 2023). This leaves a big gap on theoretical and practical end.

In the context of the specialized area of concerns like the agri-livestock development, there is an apparent lack of systematic knowledge of the contribution of adaptive capacity to development of resilience at the organizational level especially among the organizations in the public sector (Liang & Cao, 2021). In the case of PAMCO, resilience is realized not only in terms of surviving institutional volatility, but also in terms of realizing tactical congruency with the national and international policy agendas (e.g., meat export competitiveness, halal certification compliance, food traceability and digital transformation). Nevertheless, a divided mandate, lack of inter-departmental co-operation and structural reforms issued by outside agents can generally complicate the formation of internal adaptive solutions (Dalziell & Mcmanus, 2004).

Moreover, the literature does not exist on the context-sensitive studies on the work of such organizations within the restrictions of the public accountability, financial control, and political influence (R. Chen et al., 2021). This study intended to address these gaps by proposing an integrative and narrative synthesis on how adaptive capacity makes organizational resilience possible under the operational and institutional conditions of PAMCO. Based on the presented study of internal and external conditions affecting the adaptability and evolution capability of PAMCO, the given research can offer a grounded information that can be used to inform the theory, policy, and practice (Afshar & Shah, 2025).

This paper explores the relationship between adaptive capacity, and organizational resilience in the context of the public sector where PAMCO is taken as a contextual case at which illustrative synthesis can be done. This narrative review explores the possible roles of some of the most prominent concepts, i.e. leadership, innovation, institutional learning, policy coherence, stakeholder engagement, and inter-agency coordination in the formation of adaptive capacity and, subsequently, resilience (Vallury et al., 2022). The researchers are also interested in finding any structural or strategic enablers that other institutions of a similar nature may utilize in a bid to overcome the pressure of institutional fragility or transitioning in a sector (DeCaro et al., 2025).

The current paper adds to scholarly and the policy discussion in a few primary aspects. To begin with, it presents an empirically based context-based synthesis of the role of adaptive capacity on the resilience in a developing country context in a public sector agribusiness. Second, it embraces disparate literature on the resilience of the public sector and adaptive capacity into a logical conceptual framework which can be applied to functional public enterprises. Third, the study provides practical recommendations to policymakers, public managers, and development partners that aim to get better results in the institutional performance and sustainability in agricultural and livestock grounds, as well as focus on the organization that operates in the real world, setting practical constraints or limitations and high-impact mandates in PAMCO. Lastly, it gives a fresh look on the Global South, which is scantily represented in mainstream organizational resilience literature and gives a sense of decolonization to theoretical paradigms in public administration.

Conceptual Framework

The environment in which organizations in the public sector operate is increasingly more volatile, uncertain, intricate and abstruse. Responding to such states is no longer a side agenda but a core need for institutional sustainability and production of public value (Grothmann & Patt, 2005). This constitutes an environment in which organizational resilience and adaptive capacity have become interconnected and connected constructs that dictate how public organizations respond to setbacks, improvise in a bind, and emerge in or redefine themselves after crises (Madi Odeh et al., 2023).

The section forms the conceptual groundwork of the research topic by explaining these two constructs and how they mutually depend on each other given the nature of the research study, which is the governance of the public sector, in particular putting into perspective the working dynamics of PAMCO as a public enterprise in the agriculture and meat sector in Pakistan.

Organizational Resilience

Organizational resilience is the ability of an organization to absorb shocks, adapt to the change and still be in a position to deliver the stipulated core mandates amid interruption, stress or even the long periods of uncertainty (Annarelli & Nonino, 2016). Resilience also means bouncing back in terms of crisis and also bouncing forward by transforming in response to new arising challenges (Gligor et al., 2019). It is composed of risk anticipation in addition to responsive capacity building alongside institutionalization of learning processes that enables organizations to enhance their systems with time (Singh & Singh, 2019).

Operationally or technically, resilience in the context of the public sector ought to be grasped as a factor of legitimacy, transparency, accountability, and trust by the stakeholders (Lisdiono et al., 2022). Public organizations like PAMCO are expected to address competing mandates, often stemming with changing budgetary allocations and external accounting processes, and immersed in larger, more-political organization, not the case with private institutions. Their sustainability thus depends on the organizational internal systems and the outside ecosystem of governance (Morales et al., 2019).

In the case of PAMCO, organizational resilience is a capability that seeks to ensure that the service provision like meat processing, value chain facilitation and market development are maintained when changes to regulation are made, access to markets is affected or when the institution restructures itself internally (Afshar, 2023). This necessitates protocols that will not be limited to the normal functioning and offset anticipatory schedules, innovation, and the continuity of the creation of public value.

Adaptive Capacity

Adaptive capacity is usually referred to as the capacity of an organization to anticipate, to take in and react to the small and sudden alteration in the environment of an organization rearranging its resources, structures, and strategies (Engle, 2011). It comprises of aspects like knowledge management, organizational learning, adoption of innovation, inter-organizational organizational aspect as well as flexibility of decision-making (Smit & Wandel, 2006; Vallury et al., 2022). Adaptive capacity encompasses the capacity to identify early warning signs, which involve trial and error approach to finding solutions and incorporate feedback loops into decision making (Grothmann & Patt, 2005).

Adaptive capacity is of prime significance in the public sector organizational environment owing to the fact that there are regular policy changes, limited finances and a complicated stakeholder scenario (DeCaro et al., 2025). Adaptive capacity, as applied in the case of PAMCO, comprises the technology changes like the implementation of traceability systems to allow the export of meat, institutional

flexibility in meeting changing donor expectations, inter-agency collaboration and human capital management as an instrument of knowledge-based decision-making.

Leadership orientation, organizational culture and institutional autonomy also impact on adaptive capacity. The bureaucratic environment can be rigid and it inhibits adaptive capacity due to rule conformity, fear-of-failure and micromanagement by the board (Madi Odeh et al., 2023). In contrast, positive supporting environments described as distributed leadership, employee empowerment, and strategic learning show the propensity to be more adaptive (Vallury et al., 2022).

Interconnection Between Adaptive Capacity and Organizational Resilience

Adaptive capacity is regarded as the mechanism where resilience is constructed, maintained and functionalized. Resilience signifies the status achieved after bouncing back, a state of dynamic equilibrium and indicates that the organization was capable of operating well under pressure, whereas adaptive capacity represents the actual capacities that allow such a state to occur in the first place (Dalziell & Mcmanus, 2004; Vallury et al., 2022).

As highlighted by scholars, resilient public organizations refer to the ones that are structurally adequately prepared and behaviorally flexible. This needs more than strong systems, but the intellectual and social ability to adapt, to innovate and to learn on a continuing basis. Viewing capacities, adaptive capacity is seen as a prerequisite to resilience and an enabler of resilience (Alibašić, 2025).

This interconnection can be seen in this case of PAMCO through its reaction to some challenges in its operations. As an example, to realize international traceability requirements in red meat export, adaptive learning, multi-functional cooperation, and digital transformation are essential aspects of adaptive capacity. This effectively increases the capacity of PAMCO to sustain credibility in the international markets, hence strengthens its resilience as these practices are embraced and institutionalized appropriately. Likewise, its attempt to simplify regarding its operations, and its compliance with changing models of public-private partnership depends on the capacity of adjusting itself through training, decentralization and integration of knowledge.

Moreover, the mechanism of adaptive capacity makes resilience possible in a variety of aspects:

- Strategic resilience: This is the ability to deal with unpredictable dynamics in fast-changing policy environments because of the possibility of using situation planning, foresight and aligning strategically (Brooks et al., 2005).
- Operational resilience: Creating stability in processes that are flexible and technological innovations favoring service continuity (Madi Odeh et al., 2023).
- Human resilience: The ability to create a leadership agility, team learning and empowerment of the workforce to address crisis situations (DeCaro et al., 2025).
- Institutional resilience: By developing trust, legitimacy and stream of co-ordinated regimes that resist systemic shocks (Vallury et al., 2022).

Lack of adaptive capacity may undermine resilience, even in institutions rich in resources, whereas a robust adaptive capacity can put resilience back even in very constrained circumstances, increasing its importance to public sector transformation (Engle, 2011).

Relevance to Developing Country Public Sector Entities

The interdependence of the adaptive capacity and resilience is especially applicable to the public sector organizations of developing nations that usually have to work within the constraints of resources, divided mandates, and discontinuity in policies. Organizations such as PAMCO are required to deal with unpredictable policy agendas, late budget releases, excessive personnel changes and overlapping mandates with other bodies. Resilience to such events cannot just be achieved through formal systems, as informal networks, culture flexibility and internal initiative-taking becomes crucial (Hollaar et al., 2025).

Through its concentration on PAMCO, the study refers to how a sector-specialised State enterprise in a developing economy can implement adaptive mechanisms to enhance resilience to both endogenous (e.g. structural inefficiencies) and exogenous (e.g. market access constraint) forces. The case helps to establish a more realistic, contextually sensitive view on the process of resilience-building in the realities of institutional weakness and inertia that prevail in the sphere of public sector.

Analytical Lens for the Study

This conceptualization structures the narrative synthesis that will be described below in terms of adaptive capacity being a multi-dimensional concept that involves:

- Learning/innovation ability
- Responsiveness in stakeholders and networks
- Flexible decision making and leadership
- Organizational independence and flexibility of governance

The dimensions are discussed based on their contribution to the development of organizational resilience outcomes, i.e., maintaining functionality over time, the rate of speed at which normalcy is regained, credibility and ability to transform, in the operations of PAMCO and similar public sector environments.

METHODOLOGY

In this section, the procedure followed in the narrative synthesis of the inter-dependency of adaptive capacity and organizational resilience in the context of the developing countries and specifically inside the Punjab Agriculture & Meat Company (PAMCO) is presented. Since the study was descriptive and integrative, a narrative synthesis approach was used to enable the organized, but flexible compilation of the various streams of literature (Afshar & Shah, 2025; Rother, 2007). The approach helps in developing theory, as well as, interpreting context, especially where there exists fractured empirical findings across disciplines and domains.

Its methodology includes three important aspects such as literature selection strategy, analysis criteria and thematic mapping. Each corresponds to the following description to be as transparent, scholarly and replicable as possible.

Literature Selection Strategy

A purposive and systematic literature search was carried out to allow retrieval of relevant scholarly and grey literature pertaining the concept of adaptive capacity, organizational resilience and its applicability to the entities within the public sector especially in the agricultural and livestock sector (Doyle et al., 2016).

Databases and Sources

The literature was drawn from a range of indexed academic databases including:

- Scopus
- Web of Science
- Taylor & Francis Online
- Wiley Online Library
- SpringerLink
- JSTOR
- Google Scholar (for grey literature and working papers)

Additionally, policy documents and sectoral reports were reviewed from the following sources:

- Public sector reports
- PAMCO's annual reports
- FAO, World Bank, and ADB reports on public sector resilience

Inclusion and Exclusion Criteria

The literature selection was governed by the following inclusion criteria:

- Peer-reviewed journal articles published between 2001 and 2025
- Studies focusing on adaptive capacity, resilience, or public sector organizational performance
- Research contextualized developing economies or Agri-livestock sectors
- Conceptual, theoretical, and empirical studies

Exclusion criteria included:

- Articles with purely technical focus (e.g., engineering or veterinary sciences without organizational linkage)
- Studies lacking relevance to public institutions or organizational dynamics
- Duplicated or derivative reviews with limited originality

Over **130 sources** were initially identified. After a two-stage screening process involving abstract-level

Analysis Criteria

The identified literature was synthesized by employing an interpretive thematic synthesis approach, which rested on an abductive reasoning approach (Brown et al., 2020; Doyle et al., 2016) . It has enabled combining deductive aspects of existing schemes with inductive aspects generated by data.

Analytical Dimensions

The following analytical dimensions were used as the literature was reviewed:

- Adaptive capacity and organizational resilience definition and conceptualization.

- Sectoral and institutional framework, particularly in the developing nation environment.
- Enabling and inhibiting factors of adaptive capacity.
- The pathways and mechanisms that the adaptive capacity is linked to in resilience.
- Case-specific experiences applicable to such a public enterprise as PAMCO.

Qualitative content analysis was applied, and each article was coded; accordingly, however, attention was paid to patterns, contrasts, and the relation of theoretical concerns.

Quality Appraisal

The reliability of sources was maintained through a quality analysis of the papers that were used, and included studies underwent a quality check following critical appraisal. The following aspects were reviewed in studies:

- Clear research question.
- Methodological rigor.
- Applicability into the context of the public sector.
- Theoretical value and practical value.

Studies that fulfilled the criteria in terms of meeting three out of four appraisal benchmarks were taken into consideration into the final thematic synthesis.

Thematic Mapping

The final step entailed the structuring of findings into thematic bundles that indicate the empirical and theoretical input of the chosen readings. The themes were combined according to the context of the entire study, which aimed to comprehend how adaptive capacity can make the public sector organizations of this sort, such as PAMCO resilient.

The categories of themes developed using iterative mapping included the following five elements:

1. Strategic Orientation and Leadership

- Role of visionary, flexible, and inclusive leadership in the formation of adaptive behaviors (Ye et al., 2021).
- The impact of leadership in the area organization learning, adoption of innovation and network mobilization (Igalla et al., 2019).

2. Innovation abilities and Learning Systems

- Knowledge absorption mechanisms, experimentation and institutional memory (Dovbischuk, 2022).
- Incorporation of innovation in its operational models, digital frameworks and human capital (Tseng et al., 2016).

3. Structures and coherence in governance

- The following impacts include all of it bureaucratic complexity, inter-agency alignment, and accountability systems (DeCaro et al., 2025).

- Structural drivers or constraints of responsiveness and agility (Pham & Vu, 2025).

4. Collaborative Networks and Stakeholders engagement

- The use of the horizontal (peer) and vertical (state or private) network to increase adaptability (Martin et al., 2020).
- Incorporation of the community, donor integration, and the public-private partnerships (Xie et al., 2022; Zhang et al., 2022).

5. Crisis Responsiveness and Recovery of the Systems

- Organizational routines and strategic capabilities of responding to the exogenous shocks (Baxter et al., 2013; Mohammed et al., 2022).
- Bouncing back vs. transformation evidence to the disruptions (Cheng, 2016; Osegbue, 2025).

These thematic groupings were subsequently revisited within the institutional context of PAMCO and this allowed the formation of a contextualized narrative that helps transfer abstract constructs to realities of practice within any organization.

Justification for Methodological Approach

The choice of the narrative synthesis approach was explained by the following aspects:

- Cross-disciplinary inconsistencies with conceptual definitions and disciplinary approaches to adaptive capacity and resilience (Almalki, 2016).
- The absence of unified measurement systems that provide measurements towards these constructs in the setting of the public sector (Lê & Schmid, 2022).
- The fact that the theory has to be applied in practice and that a real-world entity PAMCO functions in an Agri-livestock sector in the developing country (Siedlecki, 2020).
- The chance to combine the sources of information (e.g. scholarly literature, policy reports, internal documents) into a unified conceptual study (Sekaran & Bougie, 2016).

This approach would help present an organized yet flexible perspective through which workable knowledge can be gathered, inference with theoretical understanding deduced and a foundation made on which verification and policy experiment can be developed in the future.

Synthesized Findings

This section will present the results of the narrative synthesis organized into five inter-related thematic areas that are of significance to interpret adaptive capacity and organizational resilience of the public sector institutions. Based on cross-disciplinary literature and supported by the operational and strategic experience of PAMCO, the study shows the multidimensionality with which institutional resilience can be defined by a combination of governance arrangements, culture of leadership, innovation capability, learning structures and stakeholder networks. A combination of these elements is most pertinent to semi-autonomous public corporations within the sphere of agriculture and livestock in a developing economy.

Governance Structures and Institutional Coherence

The architecture of governance is fundamental being used to define the extent and quality of adaptability in organizations (Engle, 2011; Vallury et al., 2022). Based on literature, fragmented mandates, unclear

jurisdictional boundaries, and political interference are some of the dominant limitations to resilience in the public institutions. In the case of PAMCO, procedural inertia and diffusion of accountability has been fostered by the absence of an unequivocal institutional mandate in the Livestock value chain and other third party organizations in the public sector.

Research however indicates that resilience can be nurtured where governance results in the creation of operational autonomy in a strategically accountable framework (Alibašić, 2025). PAMCO has shown to be flexible and responsive where it has had an opportunity to use discretionary control, e.g. in export facilitation, halal compliance or training courses. On the other hand, slow inter-departmental approvals and procurement cycle have limited on-time decision making at critical points, e.g. responding to market shocks upon a change of trade protocols or supply chain disruptions caused by COVID-19-induced lock downs.

Institutional coherence, as brought about by the simplification of mandates, coordinated arrangements of reporting, and performance-based budgeting, becomes a structural precondition of anchoring adaptive routines (DeCaro et al., 2025). The lack of coherence in governance causes the problem of implementation of even the updated plans of resilience which are otherwise strong.

Leadership Adaptability and Strategic Orientation

Anthropogenic activity as leadership is highlighted in the literature as one of the main promoters of adaptive capacity, at least in situations with uncertainty and bureaucracy resistance. These results reaffirm that strong performers in the field of the public sector tend to be authenticated by organizational leaders or teams that are flexible, visionary, and transformative in their sights. Adaptive leaders confront bureaucratic obstacles of status quo and develop coalitions in the internal systems and exploit coalitions in the external systems to introduce change (Y. S. Chen & Chang, 2013; Ye et al., 2021).

Leadership flexibility in the example of PAMCO has played a key role in adapting to financial tightness, negotiations with the donors, as well as internal restructuring. The fact that CEO of the company was involved in promoting export collaboration, launching energy saving changes (e.g. solar integration), and driving resource efficiency agendas demonstrates the way which leadership vision can reset organizational priorities in the direction of resilience. These exceptional characteristics of such leadership are confirmed by the literature in that this type of leadership stimulates psychological safety in the course of which one feels free to experiment and learn to accept failures as normal (Igalla et al., 2019).

However, the sustainability of resilience led by the leadership is tenuous when dealing with the leadership in the public organizations where the political reassignment pattern often creates lapses in the continuity (Uhl-Bien & Arena, 2018). The long-term resiliency of any organization such as PAMCO therefore requires institutional-based, not people-based leadership models.

Innovation Mechanisms and Operational Flexibility

Adaptive capacity revolves around innovation and technology as well as process innovations. Literature identifies resource-constrained innovation (RCI) as particularly pertinent to developing nations given the fact that resourceful solutions in those countries often have to be formulated using limited financial and infrastructural contributions (Tu & Wu, 2021).

Efficient deployment of innovation can be seen at PAMCO in such projects as:

- The modernization of slaughtering mechanisms and training programs for skilled labor export initiatives.

- The use of digital traceability systems for meat processing.
- Primer use of green power solutions to control the rising utility tariffs.

These practices of innovation exhibit how PAMCO has been making areas of flexibility in a generally rigid institutional environment in the public sector. The scaling of innovation is, however, limited by poor research connectivity, poor budgetary allocation to experimentation, and limited knowledge management infrastructure the challenges which are raised repeatedly in the literature on innovation in the public sector in developing economies (Do et al., 2022; Garrido-Moreno et al., 2024).

Decentralized control, risk shielding and a feedback loop scheme facilitate effective innovation systems in resilient institutions (Li & Shafait, 2025). Incorporation of these principles into PAMCO innovation governance is also one of the aspects of the adaptive infrastructure that should be enhanced.

Institutional Learning and Knowledge Integration

Institutional learning is a process under which organizations internalize their experience and modify policies, structure, and strategies. Literature broadly defines learning as single-loop (corrective action), double loop (revision of policies) and triple loop (reframing of assumptions and culture). Within resilient public entities learning is an element of their normal activity and enabled by more formal systems like audits, reviews and after-action reports (Argote & Miron-Spektor, 2011). In the case of PAMCO, mostly learning has been taking place in the forms of crisis handling and external auditors, in particular, as opposed to proactive reflection and scenario-planning.

Arguments based on narrative evidence indicate that there is need to shift from episodic to institutionalized learning among the people operating in a public organization such as PAMCO to enhance the capacity of organizations to adapt. This is through investment in:

- Knowledge management systems
- Department of Learning Platforms
- Personnel training using future skills-oriented curriculum

Another cultural change that public sector entities face is the slow adoption for acceptance of experimentation and failure especially in learning institutions.

Stakeholder Coordination and Network Responsiveness

Organizational resilience has always been connected with stakeholder issues and networks, especially when there are fragmented institutional systems (Porter & Woo, 2015). The literature supports the aspect of relational capital as trust-building cross-sectoral relationship as the means of promoting adaptive action. Responsiveness among stakeholders can facilitate exchange of information, pooling of resources and joining of efforts in a situation of crisis or change (Amat & Wang, 2025; Carnabuci & Diószegi, 2015).

The adaptive capacity of the company has frequently been less dependent on such partnerships, especially when it comes to those times where the company has been faced with a high-stakes game of negotiations when it comes to meat export methods or alignment of halal certification. Nonetheless, bureaucratic silos and poor contact between agencies are some of the prevailing challenges. Resilient organizations are described in the literature to coordinate stakeholders by institutionalizing a formal platform, joint task forces, and real-time data-sharing mechanisms which PAMCO might continue to consolidate its stakeholder approach.

Taken together, the five themes show that adaptive capacity is an emergent property of inter-connected institutional characteristics as opposed to some singular technical ability (Faust et al., 2015). Enabling governance, agile leadership, innovation ready, structured learning, and effective stakeholder engagement are the factors that make the difference in PAMCO and other similar governmental institutions to be resilient. The themes also portray the fact that gaps in each area can compromise the resilience design of the entire structure, indicating the need of coherent capacity-building plans.

DISCUSSION

This section integrates conceptual and contextual knowledge gained as a result of the narrative synthesis in order to bring out the wider theoretical, practical and policy related implication insights of the concept of adaptive capacity within the context of public sector organizations. Centered on the empirical realities of such entity as the Punjab Agriculture & Meat Company (PAMCO), the discussion covers the theme how the adaptive capacity can become a mechanism and a measure of what drives sustainable organizational resilience, especially within the context of a complex, resource-constrained, and politically influenced environment.

Theoretical Implications

These results are valuable with regard to the new theoretical debate approach to resilience in the public sector since they operationalize adaptive capacity through the multidimensional measurement. The traditional resilience literature has tended to focus on systems recovery and risk preparedness (Review, 2019); this paper helps to bring out the argument that adaptive capacity does not have to be reactive, but it is an anticipated and developmental capacity enveloped in organizational routines, culture and leadership behaviours.

This inter-disciplinary conceptualization based on the integration of the theories of governance, institutional learning, public innovation, and stakeholder theory provides a certain understanding of the adaptive capacity as a facilitator of dynamic capability in public institutions (X. Yang et al., 2023). It stands behind the proposition that resilience is emergent property based on:

- Strategic foresight and loose governance (Shalom et al., 2025).
- Leadership of transformation and group learning (Igalla et al., 2019).
- Collaborative network and responsive innovation (Alibašić, 2025).

When applied to developing countries, where public organizations such as PAMCO have to deal with the unstable political environment and insufficient finances, adaptive capacity becomes a structural substitution to static compliance-oriented models by means of encouraging flexibility and innovation, as well as participatory approach.

Moreover, the contextual embeddedness of the adaptive capacity highlighted in this study demands that mechanisms of resilience are not universally applicable and need to be adjusted to each sector specific problems, institutional background, and stakeholder interactions. The theoretical model, hence, provides a flexible but limited framework of comparative research in the spheres of the public sector.

Practical Recommendations for Public Sector Entities

The study focuses on a practical perspective; therefore, in a practice-oriented perspective, the study identifies some of the interventions that can be undertaken to help improve the adaptive capacity of public sector entities, with PAMCO being one of the examples.

Learning Systems should be institutionalized: Government agencies should not be reactive in their learning and need to create formal means of knowledge capture, reflection, and implementation. This involves the establishment of internal knowledge banks, after-action reports and peer-learning discussion forums. In the case of PAMCO the experience of the export markets' shutdown or delays with procurement can be formalized to serve the company better in the future.

Frontal Leadership Continuity and Development: Since leadership plays a leading role in promoting adaptability, governments ought to devote resources towards succession planning, leading contracts, staffing, and decentralization of decision-making (Madi Odeh et al., 2023) . Stability and visionary leadership within PAMCO resulted in an improvement in performance- this is an indication of the need to insulate the executive offices against political transitions.

Incorporate Innovation in Strategic Planning: Innovation must be incorporated as a strategic business activity and not an occasional or donor-based process (Bhatia, 2021). Organisations ought to create room in the budget and processing elasticity of experimentation, prototyping and loop-adjusted extrapolation (Li & Shafait, 2025). This is associated with additional investment in the areas of digital traceability, energy conservation, and value-added meat processing on behalf of PAMCO.

Build up Associated Mechanisms of Governance: To minimize fragmentation, cross-functional task forces, inter-agency working groups, and performance-based accountability structures are some of the ways of aligning operations across departments (Despard, 2016; Panda & Leepsa, 2017) . Governance reforms that foster horizontal coordination are the solution to PAMCO engagement with the stakeholders.

Farm Stakeholders Ecosystems: Creation of long-term mutually beneficial relations with exporters, regulators, researchers, and civil society makes the functioning of public organizations convenient, up-to-date, and responsive (Bracci et al., 2021) . The meat professional training offered by PAMCO and the facilitation of halal certification processes are promising in the sense that they should be better anchored at the institutional level.

CONCLUSION

In this study the review of adaptive capacity and organizational resilience has been carried out with a view to how it would apply to entities in the public sector, organizations in the developing world and, specifically, to the working environment of the Punjab Agriculture and meat company (PAMCO). Narrative synthesis examined the impacts that governance structure, leadership flexibility, innovation processes, institutional memory, and stakeholders' coordination all had on the capacity of an organization to be flexible and resilient to the effects of systemic, political and operational shocks.

Summary of Key Insights

The results support the statement that adaptive capacity has been treated by scholars as a single metric when it is in fact dynamic and cross-functional ability that is dependent on institutional design, cultural norms, flexible resources, and leadership orientation. Based on their analysis, the narrative synthesis has found five interconnected thematic domains, which are the enabling drivers of adaptive capacity in the case of public sector organizations:

Governance Structures: Good adaptive systems have governance systems which provide a good balance among operational autonomy and institutional accountability (Naveed & Azhar, 2022) . This balance allows organizations to undertake emergent challenges, tackle them strategically and be able to respect their legitimacy and regulation without limitations.

Leadership Adaptability: The notion of resilience is heavily dependent on the capacity of the leadership to make new predictions and approach ambiguity and change (Douglas et al., 2022). Adaptive leaders are the drivers of responsiveness in institutions and transformers of a common vision across hierarchies.

Innovation Mechanisms: The mechanism of innovation assumes a crucial role in building scalable resilience in an environment that is limited in resources and has complex mandates (Ye et al., 2021). Processes that facilitate organizational renewal include flexibility of the procedure, transformation through the use of digital streams and experimentation by piloting.

Institutional Learning: The development of the adaptive capacity depends on the capacity of the organization to learn in an institutionalized experience and through feedback loops, institutional and long-term performance improvement.

Stakeholder engagement: Federative and networked engagement of internal and external stakeholders reinforced resilience, and allows mutual co-creation of solutions, shared accountability and greater legitimacy in crisis and transition (Awa et al., 2024).

Resilience in the PAMCO context has not emerged out of resource abundance, but rather as a product of creative visioning, practical innovation and institutional leadership commitment to change, in an otherwise rigid atmosphere and within the constraints of bureaucracy.

Policy Implications

The overall study provides a number of policy-relevant conclusions that may be of interest to reforming public administration, the architects of institutional construction, and actors of governance in developing economies:

Make Adaptive Capacity institutional: Incorporate the adaptive capacity as formal policy goal into strategic plans, performance assessments and civil service growth plans.

Reform Governance Frameworks: Enhance participatory, integrated functions of governance that give the administering bodies a leeway to maneuver without compromising the system of accountability.

Give Incentives to Innovation and Learning: Give policy incentives to experimenting, cross-learning, and digital transformation within public institutions particularly in export-oriented industries, such as Agri-livestock.

Improve Coordination Between Agencies: Work on procedures to coordinate with agencies and develop online platforms that coordinate operations in real-time in ministries, departments, and even public businesses.

Guarding Leadership Tenure: Settle executive offices within a public body to guarantee leadership continuity in the processes of reforms as well as strategic foresight.

Inclusion on the national and sub-national agenda governance can create a stronger government sector with a better ecosystem that can withstand the current and future adversities.

STUDY LIMITATIONS

Although this study did carry important theoretical and practical insights, some limitations are worth mentioning:

Narrative Synthesis Scope: The analysis is based mostly on secondary literature and synthesized views which, despite the riches in their conceptual appeal, might be devoid of the empirical focus of the case study or the longitudinal fieldwork.

Single-Entity Contextualization: In spite of its applicability as an exemplifying case, PAMCO remains debatable in other spheres of institutional and sectoral setting, which restricts the applicability of specific discoveries to other state bodies or countries in general.

Time restraints: The adaptive capacity is dynamic. This aspect of the study takes a snap shot of the situation rather than a trajectory and thus it might influence the applicative capacity of some of the results to changing regimes of policies or to external shocks.

These restrictions constitute the foundations of future research involving the application of different methods and taking a more comprehensive framework of comparison.

DIRECTIONS FOR FUTURE RESEARCH

The synthesis of this narrative has opened a few plausible directions in future research:

Comparative Case Studies: Examine adaptive practice in various institutions and across various forms of public entities in order to extract generalizable conclusions.

Empirical Modeling: Test the causal effects of the relationships amid the dimensions of adaptive capacity and the results of resilience by using quantitative approaches (e.g. structural equation modeling, PLS-SEM).

Longitudinal Analysis: Analyze the way the adaptive capacity evolves in the exposure to shock e.g. pandemic, climatic change, or political turmoil.

Sector-Specific Studies: Consider different sectors in which adaptive capacity should be examined to define the most successful adaptive practices, including public health, energy, education and infrastructure.

Joining forces with Digital Governance: Examine the contribution of digitalization, artificial intelligence and data-based governance decisions in the frameworks of adaptive capacity.

The expansion of existing knowledge bases by interdisciplinary and cross-sectorial inquiry will help researchers increase the strategic focus of public sector reforms and contribute to the discussion of state resilience in the 21st century on the international level.

Declaration

Ethics Approval and Consent to Participate: This study adhered to academic ethical guidelines for research, ensuring informed consent and compliance with data privacy standards.

Conflicts of Interest: The author states that there are no conflicts of interest associated with this study.

Acknowledgement: All contributing authors have been properly acknowledged, and all relevant author details have been appropriately mentioned.

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