Organizational Resilience in Educational Institutions: A Stakeholder Perspective Using Nominal Group Technique

Daya Tahan Organisasi dalam Institusi Pendidikan: Perspektif Pihak Berkepentingan Menggunakan Teknik Kumpulan Nominal

Ariff Zakwan[a], Zuraidah Abdullah[b*]

[a]Department of Educational Management, Planning and Policy, Faculty of Education, University Malaya, ariffzeckzakwan@gmail.com

[b]Department of Educational Management, Planning and Policy, Faculty of Education, University Malaya, *Corresponding author:* zuraidahab@um.edu.my

Abstract

Organisational resilience is essential for institutions to navigate disruptions such as policy changes, pandemics, and rapid technological advancements. However, research on resilience has primarily centred on business and management, leaving the education sector underexplored and limiting its ability to develop resilience effectively. This study addresses this gap by identifying key determinants of organisational resilience in educational institutions using the Nominal Group Technique (NGT), a structured method for achieving expert consensus. Nine educational stakeholders, including administrators, lecturers, principals, headmasters, teachers, school staff, and parents, participated in structured NGT sessions. Findings reveal that stakeholders demand a supportive institutional culture and positive communication as fundamental pillars of resilience. They also emphasise the critical need for proactive management, flexibility, and effective leadership to drive long-term growth and adaptability. The study concludes that educational institutions must adopt a proactive, inclusive approach to resilience-building, leveraging diverse stakeholder input to develop strategies tailored to unique challenges. Furthermore, this study proposes an organisational resilience framework for educational institutions, offering guidance for future researchers, school management, educators, policymakers, and other stakeholders. This framework aims to cultivate a culture of resilience, ensuring the sector's sustainability and capacity to thrive amidst evolving challenges.

Keywords: Organisational resilience, sustainability, education, Nominal Group Technique

Abstrak

Daya tahan organisasi amat penting bagi setiap institusi untuk menghadapi cabaran seperti perubahan dasar, pandemik dan juga kemajuan teknologi yang pesat. Walaubagaimanapun, kajian mengenai daya tahan organisasi kebiasaanya bertumpu pada bidang perniagaan dan pengurusan yang jarang diterokai oleh bidang pendidikan dan telah menghadkan keupayaan untuk membangunkan daya tahan organisasi dengan lebih berkesan. Kajian ini ingin mendekatkan jurang tersebut dengan mengenalpasti faktor utama membangunkan daya tahan organisasi dalam institusi pendidikan berpandukan Teknik Kumpulan Nominal (NGT), satu kaedah berstruktur untuk mencapai persetujuan pakar. Sembilan pakar termasuk pegawai pendidikan, pensyarah, pengetua, guru besar, guru, staf sekolah dan wakil penjaga telah terlibat. Hasil kajian menunjukkan bahawa penekanan terhadap budaya intitusi yang berkomunikasi dengan positif adalah tonggak utama dalam asas daya tahan sesebuah organisasi. Penekanan terhadap keperluan dalam pengurusan yang proaktif, fleksibel dan kempipinan yang berkesan dapat memacu perkembangan jangka panjang dan kebolehsuaian organisasi. Dapat disimpulkan bahawa institusi pendidikan perlu mengambil pendekatan yang proaktif dan inklusif dalam membina daya tahan dengan memanfaatkan segala sumber untuk membentuk strategi yang sesuai dengan cabaran yang dihadapi. Selain itu, kajian ini turut menyediakan satu rangka kerja yang khusus untuk membentuk daya tahan organisasi pendidikan yang dapat memberi panduan kepada para penyelidik, pengurusan sekolah, pendidik, pembuat dasar dan pihak berkepentingan lain. Rangka kerja ini bertujuan untuk menanamkan budaya kerja yang lebih berdaya tahan untuk memastikan kelestarian dan keupayaan untuk terus berkembang merentasi cabaran yang mendatang.

Kata kunci: Organisasi, daya tahan, kelestarian, pendidikan, Teknik Nominal Kumpulan

INTRODUCTION

Over five decades have passed since Holling's (1973) groundbreaking resilience study, which laid the foundation for understanding resilience through an ecological lens. Since then, the concept has evolved significantly, expanding into a broad interdisciplinary framework focused on survival and adaptability (Ledesma, 2014). Resilience has become a cornerstone of organisational research, defined as the ability to anticipate, absorb, and adapt to challenges while leveraging opportunities presented by disruptions (Denyer, 2017). Globally, researchers are delving into the study of resilience, driving transformative changes across diverse fields such as psychology (Luthans et al., 2006), business (Mehta et al., 2024), and organisational management (Mahmoudi et al., 2022). Their innovative insights and collaborative efforts not only deepen our understanding of resilience but also redefine how organisations operate and thrive in an increasingly dynamic and unpredictable world.

Being prepared for unexpected disruptions, ready to adapt to anomalies and treating success lightly, as it is delicate to any twist, captures the essence of organisational resilience as described by Vogus and Sutcliffe (2007). Their perspectives marked a turning point in understanding resilience and were crucial in providing the foundational groundwork for organisational dynamics rather than individual-focused approaches. However, the concept of resilience has often been overlooked in studies of educational organisations and had a significant effect on many stakeholders, as everyone was caught flat-footed during the recent pandemic (Nandy et al., 2021). Additionally, in the era of rapid change and unprecedented challenges, educational institutions face unique difficulties in ensuring the continuity of teaching and learning during crises while also prioritising the psychological, emotional, and overall well-being of students and staff (Riva et al., 2020). It is a complex scenario that, while easy to articulate, presents an opportunity for growth and resilience in action.

While the number of publications on organisational resilience has grown significantly since 2022, alongside psychology and health research (Zhang et al., 2022), this area remains underexplored within the context of educational institutions. The complexity of educational

institutional structures, compounded by societal expectations, technological advancements, and economic disparities, demands considerable attention from scholars. The issues with interconnected roles and responsibilities seem particularly vulnerable to internal and external disruptions such as peer relationships (Colvin & Ashman, 2010), leadership (Chaaban et al., 2023), working cultures (Tohidian & Rahimian, 2019), technological shift (Niță & Guțu, 2023) and global pandemics (Liu et al., 2021). Previous research suggests that leadership and supportive cultures can address these issues within an educational context (Beltman et al., 2018). However, how can the educational institution spark collective change towards resilience? These big questions mark adding to the headache of the ranging need to keep up with the relentless pace of policy changes (Moran, 2016), which strains institutions and leaves critical issues unresolved.

Providing a positive environment is not a snap in the fingers. Leaders face numerous challenges related to skills, decision-making, networks, trust and peer relationships, which are instrumental for developing collaborative and sustainable organisational networks (Ayoko, 2021). A significant risk of breakdown may arise when organisations rely solely on rigid, unresponsive structures (Zahari et al., 2023), highlighting the pressing need to accelerate adaptive capacity as a clear pathway to resilience. Furthermore, educational institutions that involve multiple stakeholders face high demands from students, educators, administrators, parents, and policymakers who seek diverse and sometimes conflicting perspectives on needs (Moran, 2016). Despite notable progress in organisational resilience research, there remains a lack of comprehensive understanding within the educational context. Existing research has mainly focused on the influence of leadership styles that may foster resilience (Che Abdul Hamid et al., 2023; Hui & Abdullah, 2020) and their subsequent impact on organisational performance (Suryaningtyas et al., 2019; Zahari et al., 2022). Generally, studies on the key determinants of organisational resilience focus on the business and management domains (Alrob & Jaaron, 2018; Arham et al., 2023; Sinniah et al., 2022; You & Williams, 2023). While these findings are valuable, they often lack broader generalisation, especially in the educational context.

Currently, we are unaware of research addressing the determinants of organisational resilience in educational institutions, particularly from the perspective of stakeholders. Related studies on organizational determinants in education have predominantly focused on the higher education sector (Mousa et al., 2020; Sezen-Gültekin & Argon, 2020). Therefore, to bridge this knowledge gap, we employ the Nominal Group Technique (NGT) to identify the key determinants of organizational resilience. This method synthesizes insights from top-tier research while incorporating brainstorming ideas and practical input from on-field educational experts. This technique offers a crucial understanding with insights gathered collectively and, in a data, -driven from educational institution stakeholders to elevate their perspectives as a whole. By leveraging NGT, this study aims to gather and analyse collective and data-driven insights from a diverse range of educational institutions stakeholders, ensuring their perspectives are holistically represented. Additionally, we aim to contribute to a deeper understanding and identify the most impactful determinants of organizational resilience in educational institutions based on stakeholders' input.

METHODOLOGY

To identify the key determinants of organisational resilience from a stakeholder perspective, we employed the Nominal Group Technique (NGT), a structured methodology for gathering and

synthesising the ideas and judgments of knowledgeable individuals to achieve collective consensus. NGT was specifically chosen for this study because it promotes active participation and leverages expert opinions in the decision-making process (Srivastava et al., 2019). For this study, we carefully selected educational experts from various organisational levels to ensure diverse perspectives within their respective working environments. This approach facilitated a thorough understanding of the issues through robust and informed discussions. Each stakeholder qualified as an expert in their field, in line with Rowley's (2002) definition of an expert as an individual with substantial experience and in-depth knowledge in their domain, enabling them to offer valuable insights.

We implemented a classic Nominal Group Technique (NGT) with slight modifications to the session structure, dividing it into three phases. The session included silent response generation, round-robin sharing of ideas, group discussions for clarification, and voting to rank the items (Salajegheh et al., 2020). Given the logistical challenges and time constraints of bringing all stakeholders together in person, we decided to use Google Meet to facilitate participation. To accommodate many experts' preference for concise discussions, we proactively distributed essential information about the study via WhatsApp beforehand. This ensured that all participants were well-informed and prepared to engage in the process. During the NGT session, we actively moderated the discussion to facilitate democratic group consensus, allowing meaningful interaction while managing potential individual dominance (Perry & Linsley, 2006). In the first phase of the meeting session, we presented the key determinant derived from 15 previous studies published in top-tier journals and authored by prominent researchers in organisational resilience.

In the next step, participants were given time to share their ideas and perspectives on key determinants of organisational resilience in educational institutions via the chat box. These contributions, along with the pre-established key determinants, were compiled onto a single page to streamline the brainstorming process. The round-robin phase commenced with a critical discussion of the suitability and relevance of the key determinants and their interrelationships. Leveraging the participants' expertise, we clarified the key determinants into distinct clusters based on their specific domains, ensuring they effectively reflected their applicability within educational institutions. The session concluded after an hour, followed by a voting phase conducted via Google Forms. The entire process for this NGT session is summarised in Table 1.

Table 1
Study the NGT sessions phase.

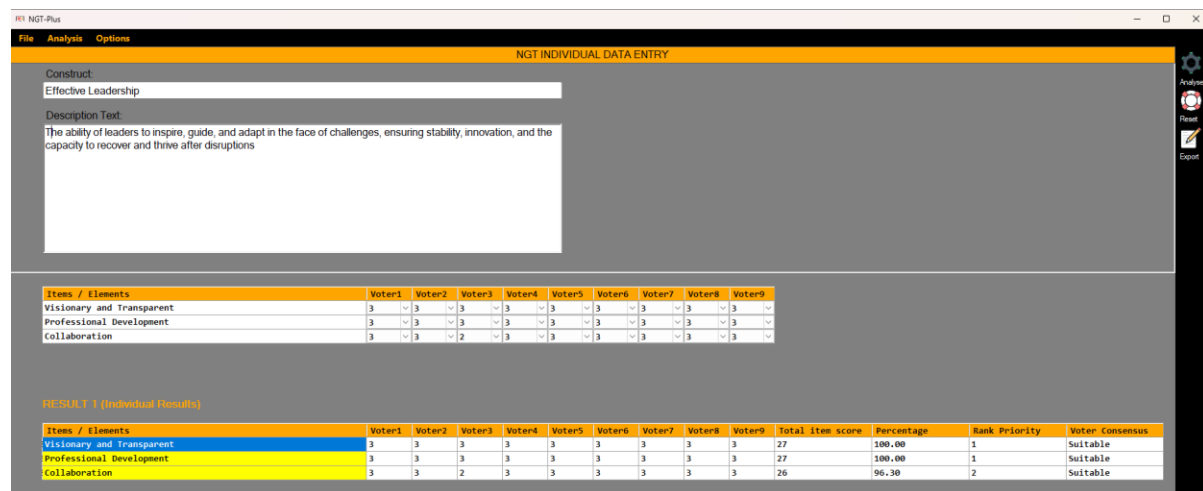|	Session	Description
Phase 1	Brief introduction of the study	All the participants received a brief introduction to the NGT session and organisational resilience. They were informed that their ideas, responses, and participation were critical to this study.
Phase 2	Explanation of the key determinants	All participants were introduced to the key determinants identified in previous studies and to how they relate to educational institutions.
	Idea generation of participants	The 10-minute timeout was given to ensure all participants could brainstorm their ideas individually. Their ideas were collected through the chat box, compiled, and presented for further discussion.

	Round-robin of sharing ideas	All participants were given an equal chance to share and explain their ideas that may contribute to educational institutions. The moderator assessed the sharing session and revised the ideas presented comprehensively.
	Group discussion and clarification	The checked-and-balanced session reached consensus by clarifying the key determinants and combining related ideas into clusters through critical discussion.
Phase 3	Voting process	All participants were informed that they would receive a Google Form link to independently vote and rank the key determinants of organisational resilience in educational institutions based on their perceptions and understanding.

Data Analysis

All data collected during the NGT session via Google Forms were systematically analysed using NGT-PLUS software, as shown in Figure 1. The voting results, which included contributions from 9 participants, were accurately entered into the software to facilitate a comprehensive analysis of the findings.

Figure 1
NGT-Plus analysis procedure

Sampling Procedure

The suggestions, discussions, and opinions of experts in their respective fields are essential to the success of an NGT study. Their knowledge and experience contribute significantly to understanding complex issues and ensuring that the study is grounded in well-informed perspectives (Olsen, 2019). Research on NGT consistently suggests that small group sizes are sufficient to yield meaningful outcomes (Allen et al., 2004), as the insight from a single expert can be equated with that of 100 individuals (Hubbard, 2014). Thus, the inclusion of 9 experts in this study is considered appropriate to achieve consensus. Table 2 below provides references to studies on NGT sampling procedures for comparison.

Table 2
Sampling Procedure

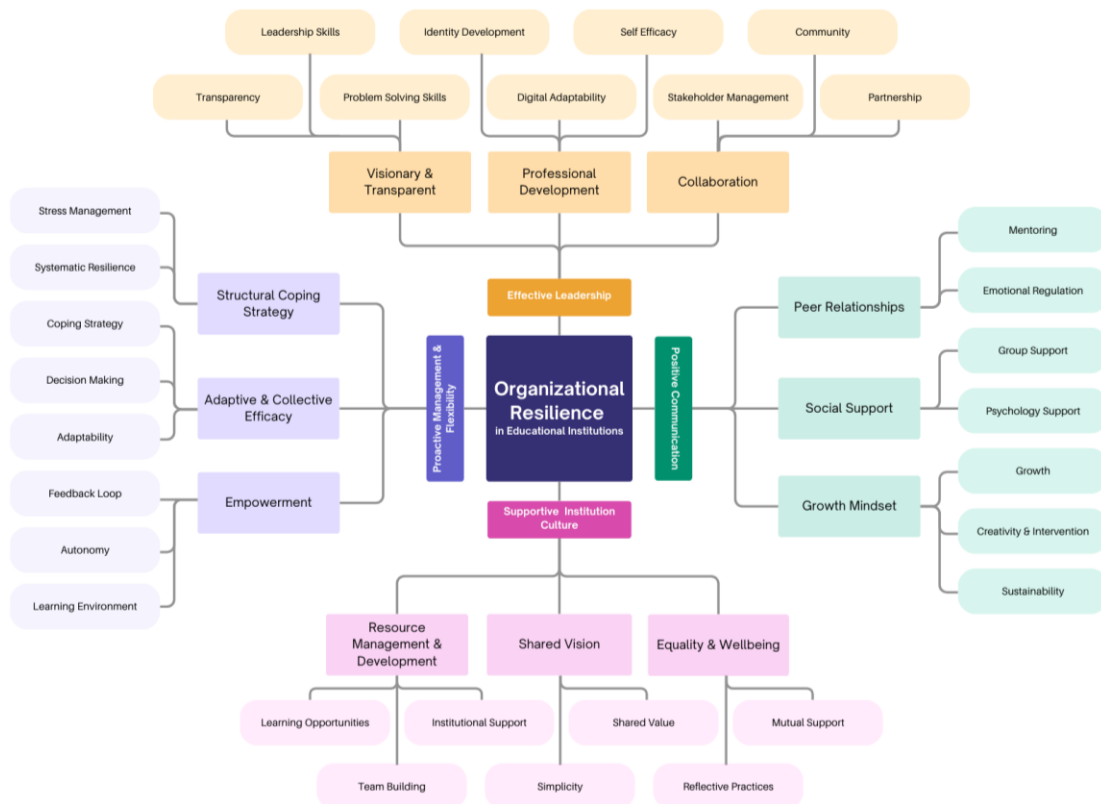| Author	Sample Size
Carney et al. (1996)	6 minimum experts
Van De Ven and Delbecq (1971)	5-9 experts
Harvey and Holmes (2012)	6-12 experts

In this study, the identified experts are individuals directly engaged in educational institutions and actively involved in educational environments. These experts possess extensive knowledge and firsthand experience in education, enabling them to provide valuable insights and perspectives on related issues. Their roles within these institutions include teaching, administration, curriculum development, educational leadership, and even student-parent roles. The diverse expertise of these stakeholders is essential for understanding the complexities and dynamics of the educational landscape. Table 3 below provides detailed information on the expert representatives, categorised by organisational level.

Table 3
NGT participants details

ID	Post	Organization Level
7	Administration Officer	Higher Education Division (BPT)
2	Assistant Officer	State Education Department (JPN)
8	Assistant Officer	District Education Department (PPD)
6	Lecturer	Tertiary Education
9	Principal	Secondary School
5	Administration Staff	Secondary School
1	Headmaster	Primary School
3	Teacher	Preschool
4	Mother/Teacher	Parent

RESULT

This NGT session uncovered multifaceted constructs that underpin organisational resilience in educational institutions, highlighting four primary determinants identified through the consensus of 9 field experts, as illustrated in Figure 2. Extensive brainstorming and discussion sessions resulted in 31 factors, all of which are believed to play a crucial role in developing resilience within educational organisations. During the discussion on clarifying the factors, the experts categorised these factors into three dimensions. This clustering reflects the similarities and common traits among the elements, ensuring a more structured and cohesive understanding of their interrelations.

Figure 2

Organizational resilience in educational institutions framework

Significant attention was dedicated to identifying and prioritising the most relevant domains that would effectively abridge the main key determinants. Consequently, four key determinants were established, guiding the development of the framework to address the specific needs of educational institutions. The framework highlights four pillars: effective leadership, positive communication, supportive institution culture, proactive management and flexibility as the strategy to equip resilient organisations. As Northouse (2022) stated, to navigate crises effectively, leaders must demonstrate transparency and adaptability in their management to ensure everyone in the organisation can navigate today's rapidly changing environment. Moreover, leveraging the stakeholders in management and forming strategic partnerships will help an organisation to drive a positive atmosphere even in turbulent times. This approach not only enhances resilience but also enables institutions to tap into additional resources and expertise, ensuring they have the necessary support to weather disruptions (Ahmić, 2022).

Understanding the complexities of the dynamic organisation is crucial, especially in multi-stakeholder institutions such as education, which encompass diverse individuals and levels with different expectations, interests and priorities. Living in such an environment, the significance of having positive communication and a supportive institutional culture cannot be overstated (Aleksic et al., 2019; Weick, Karl E., & Sutcliffe, 2017), as these elements can help mitigate decision-making and panic (Beltman & Mansfield, 2018; Boin & van Eeten, 2013; Zvavahera, 2021). However, these issues are frequently overshadowed by a predominant focus

on student achievement and academic performance rather than the organisation's well-being and remain unaddressed, highlighting the need for further exploration. While existing studies extensively focus on organisational behaviour and its relationship to resilience (Aleksic et al., 2019; Duchek, 2020), the application in educational organisations remains scarce, creating a gap that warrants attention.

Furthermore, the complexity of hierarchical structures in educational organisations poses significant challenges for critical decision-making, as everyone must consider the conflicting expectations and priorities among various stakeholders. Equipping the organisation with strategic planning by adopting proactive management and becoming more flexible can mitigate risks and prepare it to navigate challenges (Almerez & Duping, 2022). Insights from the critical discussion among experts in this NGT session underscore the centrality of resilience in sustaining organisational effectiveness, as noted by Duchek (2019), by highlighting key determinants such as leadership, communication, institutional culture, and adaptability.

Following the development of the framework for the key determinants during the discussion session, experts participated in a voting process to reach a consensus on which determinants were deemed most suitable and significant from the perspective of educational institution stakeholders. Table 4 presents the indicator descriptions used in the voting process, rated on a scale of 1 to 3.

Table 4
Indicator Description

Indicator		
1 – Not Suitable	2 - Neutral	3 - Suitable

Construct Consensus

In the final phase of the NGT session, experts voted and ranked the constructs associated with the four key determinants of organisational resilience in educational institutions based on their perspectives. Table 5 evaluates three constructs of Effective Leadership: visionary and transparent leadership, professional development, and collaboration. While all stakeholders agreed that these constructs were suitable, slight variations in total item scores revealed a minor deviation from perfection for collaboration. However, visionary and transparent leadership and professional development achieved perfect scores, reflecting 100% stakeholder agreement.

Table 5
Key Determinant of Effective Leadership

Construct		Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Voter 6	Voter 7	Voter 8	Voter 9	Total Item	Percentage	Vote Consensus
Visionary and Transparent		3	3	3	3	3	3	3	3	3	27	100	Suitable
Professional Development		3	3	3	3	3	3	3	3	3	27	100	Suitable
Collaboration		3	3	2	3	3	3	3	3	3	26	96.3	Suitable

A clear, transparent vision can serve as a guiding beacon for institutions, offering direction and instilling the trust needed for professional development for everyone (Kantabutra, 2022). Meanwhile, professional development will play a crucial role in equipping individuals with the necessary skills and competencies, empowering them to effectively carry out a collective vision (Prayag et al., 2024). Both domains received a total item score of 27, reflecting their alignment with the literature and underscoring their critical importance as fundamental elements of leadership.

Completing this domain requires collaboration across all levels of the institution. Although it received a slightly lower percentage of agreement (96.30%), collaboration remains an essential complement to both visionary leadership and professional development. Without strong collaboration among organisational members and external partners, visionary leadership risks misaligned internal efforts, and professional development may fail to integrate and support the dynamic needs of the organisation. This will serve as a strong complement to clearer roles, priorities, and commitments among stakeholders (Tohidian & Rahimian, 2019). Visionary leadership without collaboration may lead to misaligned internal efforts, while professional development without collaboration may fail to build more dynamic organisations. Further exploration of how collaboration may influence the vision-setting and professional effort towards effective organisations and leadership will bring significant value to the knowledge.

The data in Table 6 reveal a strong alignment among the constructs, consistent with the key determinant of effective leadership. Peer relationships and growth mindset stand out as the highest total item score of 27, reflecting 100% agreement among all voters. The consensus regarding these two constructs highlights that supportive interactions are fundamental for developing collective growth, which is vital for cultivating a dynamic working environment. Building around mentoring and emotional regulation factors, peer relationships help individuals thrive through mutual trust and respect, ensuring positive peer dynamics that contribute to adaptability and a focused learning environment. Even with a minor deviation in the social support construct, a 96.3% agreement rate still shows their stature in supporting positive communication. The outlier voter might suggest that this factor still needs further exploration, as it is one of the support mechanisms for effective communication.

Table 6
Key Determinant of Positive Communication

Construct	Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Voter 6	Voter 7	Voter 8	Voter 9	Total Score	Percentage	Vote Consensus
Peer Relationships	3	3	3	3	3	3	3	3	3	27	100	Suitable
Social Support	3	3	3	3	3	2	3	3	3	26	96.3	Suitable
Growth Mindset	3	3	3	3	3	3	3	3	3	27	100	Suitable

As we discussed the key determinants of supportive institutional culture, the session garnered significant attention from the experts. The complexity of organisational culture at various levels introduced new insights and highlighted existing knowledge gaps. A study by Ayoko (2021) found that the working environment's culture differs across organisational levels due to differences in hierarchical structures. This complexity is evident in the analysis shown in Table 7, which reflects diverse perspectives from stakeholders working at different organisational levels. While there was consensus that all constructs were suitable, the total percentage scores revealed varying degrees of agreement. Notably, the shared vision received 100% agreement from all experts, underscoring its critical importance. A shared vision is fundamental in aligning stakeholders toward common goals, fostering cohesion, and ensuring collective effort even in the face of disruptions (Prayag et al., 2023). This finding emphasises the need to further explore how institutional culture manifests across organisational levels and how it influences overall resilience.

Table 7. Key Determinant of Supportive Institutional Culture

Construct		Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Voter 6	Voter 7	Voter 8	Voter 9	Total Score	Percentage	Vote Consensus
Resource Management & Development	&	3	3	3	2	3	2	3	2	3	24	88.89	Suitable
Shared Vision		3	3	3	3	3	3	3	3	3	27	100	Suitable
Equality & Wellbeing	&	3	3	2	3	3	3	3	3	3	26	96.3	Suitable

From that, equality and wellbeing ranked closely behind shared vision, with 96.30% agreement. The issue of equality is not new in organisational studies, as Tohidian and Rahimian (2019) found that employees often feel they are treated unequally and that there is favouritism among

leaders. This construct also emphasised the importance of inclusivity, mental health, and overall welfare in fostering a better institutional culture. Consensus was slightly lower than the other constructs, with agreement dropping to 88.89%, reflecting neutrality from three voters. This may suggest that perspectives on resource development differ across organisational levels, particularly regarding the adequacy and prioritisation of resource-related strategies. Previous research by Lengnick-Hall et al. (2011) emphasised the dynamic role of resource capabilities in building organisational resilience, underscoring that resource management requires a tailored approach to meet institutional needs. Thus, we can conclude that the suitability of this construct is important for fostering a supportive institutional culture, especially in educational settings. However, there are nuanced differences in voter priorities.

Table 8 shows an interesting result from the construct voting, as none of the domains received 100% agreement, unlike the other key determinants. Despite this situation, each construct is still deemed suitable, as all achieved at least 70% consensus among the experts. This threshold value indicates that all constructs in this study fall within acceptable ranges (Dobbie et al., 2004; Mustapha et al., 2023). In the analysis of the key determinants of proactive management and flexibility, the constructs of adaptive and collective efficacy, and empowerment stood out, with the highest agreement percentage of 92.59%. Meanwhile, the construct structural coping strategies garnered slightly lower agreement at 88.89%, which may reflect differences in expert perceptions regarding the effectiveness of implementing these strategies within institutions. These findings emphasise that while all constructs are valid and relevant, there may be varying levels of confidence or clarity about their application.

Table 8.
Key Determinant of Proactive Management & Flexibility

Construct	Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Voter 6	Voter 7	Voter 8	Voter 9	Total Score	Percentage	Vote Consensus
Structural Coping Strategies	3	3	3	2	3	2	2	3	3	24	88.89	Suitable
Adaptive & Collective Efficacy	3	3	3	3	3	2	2	3	3	25	92.59	Suitable
Empowerment	3	3	2	3	3	2	3	3	3	25	92.59	Suitable

Structural coping strategies often face criticism for being too rigid or context-specific, rather than flexible, which can limit their applicability across diverse educational settings. However, if each organisation is able to plan and strategise their own structure based on their applicability, this mechanism will be their exit plan to recover from challenges. This is consistent with the finding by Vogus and Sutcliffe (2007) that well-designed and structured approaches can boost organisational capacity to anticipate and adapt to adversity. These elements are important to implement alongside empowerment and organisational efficacy, as this dynamic ability that leverages every mechanism's strengths within institutions raises the potential for resilience, particularly in complex systems like educational institutions. As Shani (2020) and Elgamal
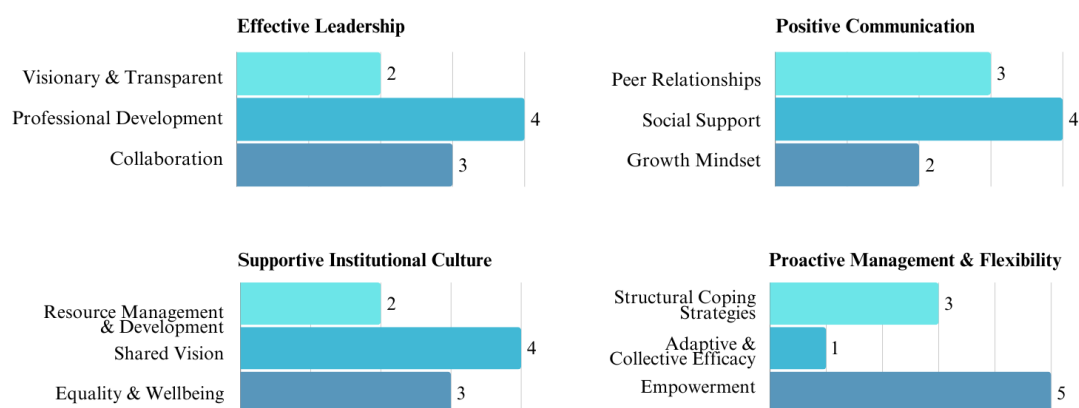
(2018) research highlights, empowerment can motivate individuals to take proactive action to address challenges and adapt personally. By combining structured approaches with empowerment and organisational efficacy, institutions can create a robust foundation for resilience, fostering adaptability and proactive problem-solving at all levels.

We can conclude that this consensus analysis reveals the multi-faceted nature of organisational resilience in educational institutions, emphasising the need for dynamic strategies to reach sustainable organisations. The interconnected factors of leadership, communication, culture, and management, which received strong consensus, demonstrate a strong alignment between stakeholder perspectives and resilience frameworks, supporting their practical application in educational institutions. However, slight variations in scoring for some constructs suggest a gap in stakeholders' understanding of how organisations should operate to adapt and endure in the face of challenges. These differences underscore the importance of developing a shared perspective among stakeholders to enhance organisational cohesion and resilience. Overall, the consensus among stakeholders clearly demonstrates that resilience is inherently dynamic and systematic, requiring a strategic balance between structured approaches and adaptive capabilities. Educational institutions must not only prioritise the development of their strategies but also adopt contextual and flexible approaches to meet the unique needs and demands of their stakeholders.

To further our understanding of the priority key determinants and dimensions from stakeholders' perspectives, this NGT session also included a construct ranking phase. This phase aimed to provide a clearer picture of which dimensions are in demand from the stakeholders' perspective and may set the stage for future exploration in organisational resilience research. Figure 3 presents the bar charts from the voters' ranking across all domains within four key determinants. The results reveal diverse perspectives among stakeholders, highlighting variations in their views on the relative importance of each dimension.

Figure 3
Voters' ranking of the most important construct for each key determinant.

Professional development emerged as the highest-ranked element, with four stakeholders agreeing that it is the most critical aspect of effective leadership, underscoring the importance of equipping organisational members with opportunities to continuously enhance their skills, contributing significantly to building resilient organisations. This perspective aligns with the
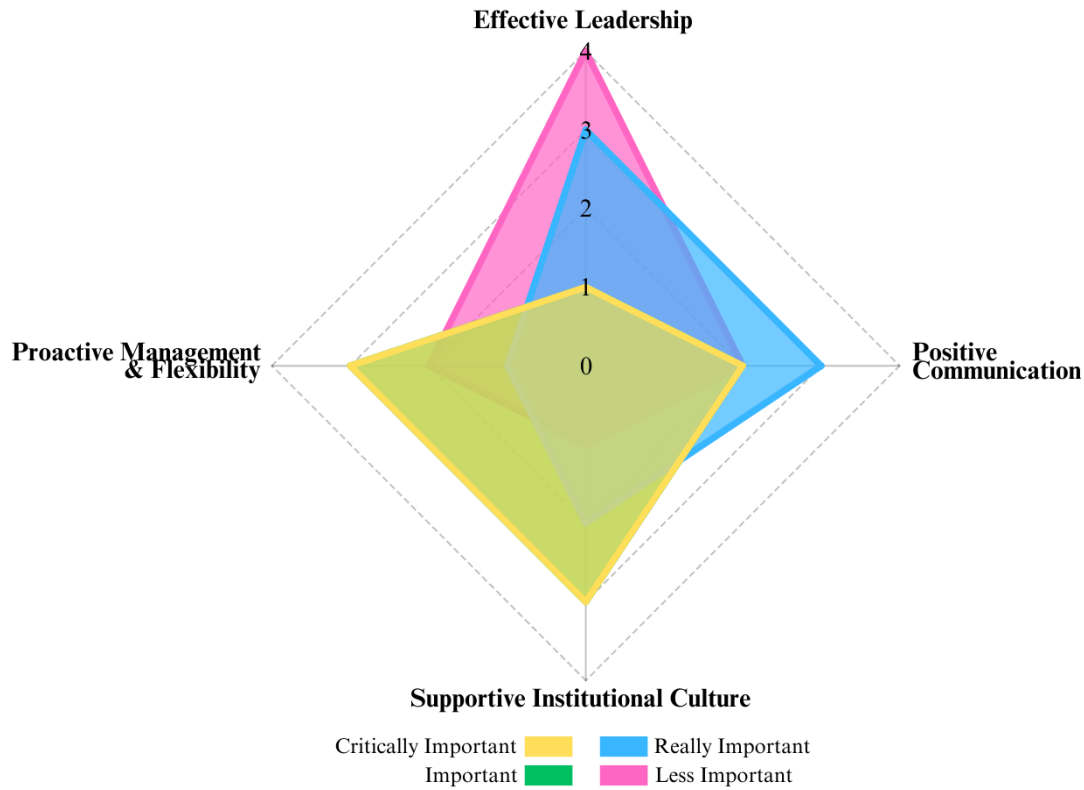
broader understanding that effective leadership, which empowers individuals such as teachers and school staff through targeted training and strategies, has a direct impact on organisational performance and resilience (Chaaban et al., 2023). An interesting point of debate emerged regarding positive communication. While the initial consensus phase revealed that social support was the only construct that did not achieve 100% agreement among stakeholders, the ranking phase presented a striking contrast. In this phase, social support was ranked as the most important factor in sparking positive communication, receiving the most votes from the four stakeholders.

The results for supportive institutional culture show a consistent perspective among stakeholders, with a shared vision ranking highly among four experts, underscoring its importance in uniting institution members to promote a supportive culture. The findings show consistent agreement throughout the NGT session. A similar trend has emerged for the proactive management and flexibility determinant, where empowerment emerged as the top-ranked construct, securing five stakeholders' votes. This not only corresponds with the consensus agreement but also represents the highest total agreement across all constructs. Notably, no other construct garnered five votes, highlighting the unique importance of empowerment. This suggests that empowerment is a crucial and in-demand element within educational institutions toward achieving organisational resilience.

Our analysis delved further into identifying which key determinants are most in demand from stakeholders' perspectives, as illustrated in Figure 4. The numbers in the radar chart represent voter counts, with the highest total agreement being four votes for the effective leadership determinant. Interestingly, this number suggests that stakeholders view this determinant as less critical in developing organisational resilience in educational institutions. This finding is particularly noteworthy as it contrasts with much of the existing literature, which identifies effective leadership as one of the primary factors contributing to resilience (Zahari et al., 2023; Zvavahera, 2021). This discrepancy invites further investigation, offering future researchers the opportunity to explore this domain in more dynamic and nuanced ways to gain deeper insights.

Figure 4
Voter ranking for the study key determinants.

The radar chart also reveals that both proactive management, flexibility, and a supportive institutional culture secured three votes each, highlighting them as the most critically important determinants of organisational resilience, particularly in the context of educational institutions. This reflects feedback from field experts who emphasised the need for flexible management and a supportive culture within their working environments. This perspective is supported by research from de Moura and Tomei (2021), which underscores the importance of proactive management and organisational flexibility in adapting to rapid changes, especially in the era of technological advancements. When paired with a supportive culture, as noted by Leithwood and Louis (2021), these factors enhance collective efficacy and help maintain stability during disruptions.

Additionally, positive communication and effective leadership received three votes as critical determinants, emphasising their role as essential factors for fostering strong relationships and a harmonious working environment. According to Torppa and Smith (2011) and Shen et al. (2016), effective communication strengthens trust and engagement, which are crucial for organisational stability. The combination of these determinants involving flexible management, supportive culture, and positive communication may provide the foundation for adaptability, enabling educational institutions to cope with challenges and build resilience effectively. In accordance with these findings, it aligns with Duchek's (2019) concept of organisational resilience as a meta-capability that underscores the dynamic nature of an organisation and

resilience by highlighting the importance of continuous learning and adaptation, especially in today's volatile, uncertain, complex and ambiguous (VUCA) environment.

CONCLUSION

In conclusion, our findings from this NGT session reveal the demanding key determinants of organisational resilience within educational institutions, particularly from stakeholders' perspectives. The consensus reached among stakeholders provides valuable insights into a supportive institutional culture, proactive management and development, positive communication, and effective leadership, underscoring their critical roles in developing organisational resilience. The interconnected nature of these determinants aligns with existing studies, emphasising that organisations must cultivate a dynamic culture of continuous learning, effective communication, and systematic approaches to adapt and thrive amidst disruptions (Evenseth et al., 2022). By leveraging participants' collective expertise, this study offers a robust framework for understanding organisational resilience in educational institutions. These insights might set the stage for future researchers to dive into a deeper understanding within this area of study.

However, this study is not without limitations, as this NGT session provides only a brief perspective among stakeholders' voices working directly in the field. More comprehensive exploration using diverse methods is necessary to gain a deeper understanding and ensure the practical implications for educational institutions are fully realised. Future studies could build on these findings by conducting empirical research to examine the impact of these key determinants on organisational resilience in specific contexts. Ultimately, this study underscores the importance of fostering a positive organisational culture to ensure stability and sustainability, enabling institutions to adapt to and overcome challenges effectively.

ACKNOWLDEGEMENT

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