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LEADERSHIP METHODS ENHANCING ADAPTIVE CAPACITY IN BUSINESS ORGANISATIONS

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Abstract. The article examines leadership methods that influence adaptive capacity – one of the most important components of organisational resilience in business organisations. The aim of the study is to determine which leadership methods most effectively strengthen adaptive capacity and what conditions determine their effective application. The study used a mixed method approach including semi-structured interviews with 30 managers from 9 companies across 8 European countries, and a quantitative survey involving 3,370 employees. 18 leadership methods that strengthen adaptive capacity through the interactions of its three key elements were identified. The study supplemented theoretical provisions on the relationship between leadership and resilience, offering a structured approach to the application of leadership practices. From a practical point of view, the identified combinations of methods help to strengthen weak areas of adaptive capacity and improve the organisation's ability to adapt to change. The novelty of the article is new theoretical models that reveal the links between effective leadership and long-term organisational resilience.

Keywords: leadership styles, adaptive capacity, organisational resilience, uncertainty, leadership, transformational leadership, employee engagement, change management, strategic flexibility, organisational development.

JEL Classification: M41, C83, L20.

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1. Introduction

In today's dynamic business environment, organisational resilience is becoming an important factor ensuring the sustainability of operations. One of the essential components of resilience is adaptive capacity, which means the ability not only to adapt to changes, but also to manage them strategically. The ability of managers to focus on developing adaptive capacity strengthens the organisation's ability to respond effectively to challenges and maintain long-term operational stability. In academic literature, adaptive capacity is defined as the ability to adapt to changes and at the same time act on them in a purposeful way (Day et al., 2021; Groves & Feyerherm, 2022). This suggests that an organisation not only responds to the environment but also transforms itself by adapting to its dynamics (Marques & Gomes, 2019). When change is based on goals aligned with broader societal or environmental impact, it can also have a positive impact on the environment (Bjekic et al., 2021). Such adaptation reflects the reliability of the organisation's consciousness and accountability (Sincorá et al., 2023; Aparisi-Torrijo et al., 2023; Denning, 2018). However, the current literature is relatively limited in its analysis of the role of adaptive capacity in the business context. Although there are authors who highlight its strategic significance, practical methodologies for implementing adaptive behaviour remain obscure.

Although numerous studies (e.g., Hillmann & Guenther, 2021; Napier et al., 2024) have established links between leadership styles and resilience outcomes, limited attention has been given to the specific behavioural mechanisms, namely, how leaders' concrete actions or methods transform strategic adaptability into operational resilience. Existing research predominantly defines leadership in

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terms of styles, traits, or competencies, while the action-oriented dimension, or what leaders actually do in everyday organisational settings, remains insufficiently theorised. This conceptual limitation constrains understanding of how leadership supports adaptive capacity, particularly within business organisations operating in dynamic and uncertain environments.

The significance of adaptive capacity is emphasised in the context of leadership, notably stressing the importance of employee engagement (Boylan & Turner, 2017; Napier et al., 2024). Research shows that without employee support, changes remain superficial (Panda et al., 2022; Yang & Yang, 2024), and their successful implementation is facilitated by teamwork and a shared belief in success (Lacerenza et al., 2018; Dionísio et al., 2022). The source of this belief is the organisation's values, which are manifested in actions, not words (Purc et al., 2023; Ciulla, 2020). Ultimately, such value-based organisations become leaders in creating social well-being (Osagie et al., 2018).

Stability today is understood as the ability to adapt to changes and maintain balance (Barasa et al., 2018). Knowledge is important, but even more important is its sharing (Malik & Garg, 2017). According to research, managers seeking to strengthen adaptive capacity should promote team cooperation, foster values, and ensure the distribution of knowledge (Driskell et al., 2017; Banks et al., 2021; Meher et al., 2024).

Thus, developing adaptive capacity requires appropriate actions by managers, changing or improving common practices. However, in business organisations, this process has its own specifics. Its essence is a rapid response to environmental changes, which is ensured by integrating theory and practice, or "learning by doing" (Day et al., 2014; Groves & Feyerherm, 2022). This means that the quality of managers' abilities and skills is determined not by the aspirations and intentions of managers, but by what they specifically do (Boyatzis, 1982). In this way, managers' actions in daily activities are revealed by the leadership methods they apply, and the effectiveness of these methods is demonstrated by the results achieved.

Although *leadership methods* is not a conventional construct in traditional leadership theories, this study uses the term deliberately to highlight the behavioural and procedural aspects of leadership. It refers to what leaders actually do in practice – the observable actions, decision-making patterns, and interactional behaviours through which leadership styles such as transformational, adaptive, or participative leadership are understood in organisational settings. This perspective draws on practice-based views of leadership (Raelin, 2016; Denning, 2018) and competence-based models (Boyatzis, 1982; Gigliotti, 2019), which redirect attention from static leadership traits to leadership as situated action. Accordingly, in this study, *leadership methods* are understood as the operational mechanisms that connect leadership theory with the adaptive capacity outcomes of business organisations.

This study addresses the identified theoretical and empirical gap by conceptualising leadership methods as behavioural mediators between leadership style and adaptive capacity. By connecting leadership theory with tangible managerial actions, it offers multilevel empirical evidence from European business organisations and contributes to a deeper understanding of how leadership behaviour enhances adaptive capacity as a central dimension of organisational resilience.

However, it is not clear which leadership methods strengthen adaptive capacity and how their effective application in business organisations is ensured. Therefore, this study aims to (1) define the theoretical concept of leadership methods that determine adaptive capacity; (2) reveal the practical aspects of the application of these methods in business organisations; (3) identify the weak areas of adaptive capacity of the companies participating in the study and determine the most effective methods for improving these areas.

The research problem addressed in this study concerns the lack of theoretical and empirical understanding of how specific leadership methods strengthen adaptive capacity in business organisations, and under what conditions their effective application can be ensured.

Thus, this study draws on transformational, adaptive, and complexity leadership perspectives to identify and empirically validate the behavioural mechanisms through which leadership strengthens adaptive capacity.

The aim of the study is to reveal leadership methods that strengthen adaptive capacity and determine their effectiveness in the context of business organisations.

To address this aim, the study formulates several research questions and hypotheses aimed at identifying the most effective leadership methods that enhance different dimensions of adaptive capacity.

Research objectives: 1) to define the theoretical concept of leadership methods that determine adaptive capacity; 2) to reveal practical aspects of applying these methods in business organisations; 3) to identify weak areas of adaptive capacity in the companies participating in the study; 4) to determine the most effective leadership methods that help improve these areas.

Research methods applied: Qualitative research: semi-structured interviews with 30 managers from 9 companies. Quantitative research: questionnaire survey of 3370 employees, data analysed using SPSS (v.29.0.0). Statistical methods applied: Chi-square test, ANOVA, Kruskal-Wallis, logistic and linear regression analysis.

The paper is organised as follows. Section 2 outlines the theoretical framework connecting leadership behaviour with adaptive capacity. Section 3 describes the research methodology. Sections 4 to 6 present the qualitative and quantitative results and analyse the effectiveness of leadership methods. Section 7 discusses the findings along with their theoretical and managerial implications. The paper concludes by summarising the key contributions, limitations, and directions for future research.

2. A theoretical framework for linking leadership behaviour and adaptive capacity

2.1. Leadership theories underlying adaptive capacity

Leadership theories have traditionally focused on styles or approaches (such as transformational, adaptive, or situational leadership). However, their actual impact within organisations becomes evident through the concrete methods and practices leaders apply to influence people and processes.

In this study, the concept of leadership methods is introduced as a meso-level construct that links leadership theory to organisational resilience. It encompasses the tangible behavioural patterns and managerial routines through which leaders facilitate adaptive processes, including collaboration, value internalisation, and knowledge sharing.

Thus, leadership methods are not an alternative to leadership styles but rather their practical enactment mechanisms, means through which leadership principles are translated into actions that strengthen adaptive capacity.

Leadership theories have evolved from static, trait-based models to more dynamic perspectives that emphasise adaptation, learning, and interaction within complex systems (Anderson & Sun, 2017; Dinh et al., 2014). Recent scholarship conceptualises leadership as a relational and context-dependent process that enables organisations to adjust and learn in uncertain environments (Raelin, 2016; Uhl-Bien & Arena, 2018). Transformational and adaptive leadership approaches highlight leaders' capacity to mobilise people, align values, and drive change key components of organisational adaptability (Anderson & Sun, 2017). Recent work also emphasises the importance of developing adaptive leadership capabilities to navigate uncertainty while sustaining organisational resilience and employee well-being (Schmitt & Pauknerova, 2025).

Complexity leadership research further frames leadership as an emergent, distributed process that supports organisational learning and resilience within adaptive systems (Uhl-Bien & Arena, 2018). Overall, contemporary leadership theories underscore that leadership is not a fixed role but an evolving behavioural process that helps organisations remain resilient and capable of continuous adaptation in dynamic business environments (Hillmann & Guenther, 2021).

2.2. Defining leadership methods as behavioural mechanisms

Building on these theoretical foundations, this study introduces the concept of leadership methods to capture the observable behavioural mechanisms through which leadership styles are expressed in practice. Whereas traditional leadership theories often explain how leaders influence others through their traits, styles, or cognitive orientations, the notion of leadership methods focuses on what leaders actually do in their daily work to foster adaptability, for example, by delegating tasks, motivating employees, sharing knowledge, or reinforcing organisational values. This perspective is consistent with practice-based views of leadership (Raelin, 2016) and competence-oriented models (Boyatzis, 1982; Gigliotti, 2019), which regard leadership as a set of learnable, repeatable behaviours rather than inherent personal qualities. In this way, leadership methods provide a practical link between abstract leadership theories and observable adaptive outcomes within organisations. Recent qualitative evidence from higher education and healthcare contexts supports this view, showing that leadership effectiveness depends on aligning observable behaviours with followers' implicit expectations of ethicality, competence, and relational integrity (Amini et al., 2025).

The leadership methods used in the daily activities of managers reflect their abilities and competencies. Although these methods are associated with specific goals, they are implemented using various tactics – practices and conditions that shape behaviour, promote productivity and create a favourable environment for organisational development (Gigliotti, 2019; Šilingienė & Stukaitė, 2021; Gravina et al., 2021; Denning, 2018; Davidavičienė & Al Majzoub, 2022).

In situations of uncertainty, organisational resilience – the ability not only to overcome crisis situations, but also to transform itself (Lv et al., 2018; Duchek, 2020) becomes a key factor in achieving goals. It consists of three components: situational awareness – perception of the environment and opportunities; vulnerability management – balancing risks and strengths; adaptive capacity – the ability to respond flexibly and evolve (Lee et al., 2018; Hillmann & Gunether, 2021; Boylan & Turner, 2017).

Thus, adaptive capacity is considered the third and final component of organisational resilience. It is modelled after the conditions of the first two components (situational awareness and vulnerability management) have already been implemented in the organisation. The cycle of interaction of all three components of organisational resilience is demonstrated in Figure 1.

The goal of organisational resilience is the ability to change circumstances to achieve a more advanced state. This process includes situational awareness (understanding the external environment), vulnerability management (exploiting strengths and balancing risks), and adaptive capacity (change, consistency, and development). Adaptive capacity depends on the ability of leaders to initiate change, maintain value consistency, and promote continuous learning in the organisation. The implementation of change requires a level of team cooperation, employee involvement, and collective responsibility (Sanchis & Poler, 2013; Barton & Kahn, 2019; Brykman & King, 2021; Chen & Zhang, 2021; Gucciardi et al., 2018). Consistency is based on values applied in daily work that give meaning to long-term goals (Naderpajouh et al., 2020; Napier et al., 2024; Szemzö et al., 2022; Athota et al., 2019; Tvedt et al., 2023). Organisational development is related to knowledge sharing, which is essential for systematic learning and performance improvement (McCarthy et al., 2017; Bjekic et al., 2021; Bondarenko et al., 2021; Diepolder et al., 2021; Davidavičienė et al., 2020). In order to strengthen the first element of adaptive capacity – change – it is necessary to

promote team cooperation based on diversity, collective responsibility and motivation. Diversity is fostered by involving employees in different positions or teams, encouraging a broader perspective and adaptive skills (Suleman et al., 2022; Gucciardi et al., 2018; Larson et al., 2023).

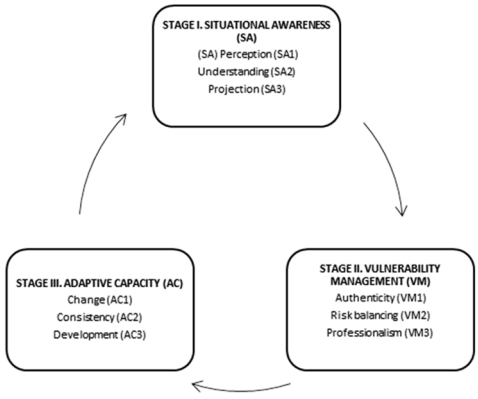


Figure 1. The cycle of interaction between organisational resilience components

Collective responsibility is strengthened by delegating cross-team tasks and applying shared accountability practices, which promote the perception of each employee's contribution to the organisation's goals (Dionísio et al., 2022; Chen & Zhang, 2021; Stewart et al., 2023; Brykman & King, 2021). Motivation is supported through opportunities for personal expression and the development of team spirit, strengthening trust and shared commitment (Javed et al., 2021; Lacerenza et al., 2018; Beck et al., 2024). To strengthen the second element of adaptive capacity – consistency – leaders should foster the values of the organisation, which are reflected in their embodiment, representation and inspiration for higher goals. The implementation of principles is strengthened by the value compatibility of the leader and employees, which promotes their authentic application in everyday life (Purc et al., 2023; Lu et al., 2023; Posner & Han, 2023). Representation of values is based on adherence to the code of ethics and an emphasis on the organisation's mission, which strengthens the sustainability of the value system (Ramašauskienė, 2020; Yang & Yang, 2024). The pursuit of higher goals is promoted through social responsibility and the involvement of the leader as a team member, which strengthens trust and shared responsibility (Tekleab et al., 2021; Radstaak & Hennes, 2017; Raetze et al., 2021).

The third element of adaptive capacity – development – is strengthened by promoting knowledge sharing in the organisation. This requires the integration of knowledge into work processes, systematic learning and the availability of support (Davidavičienė et al., 2020; Juniariani & Agustia, 2024). The implementation of innovations is facilitated by clear instructions and employee feedback (van der Kolk et al., 2019; Church & Waclawski, 2017). Learning is promoted by technological solutions and career opportunities that encourage continuous development (Stoian et al., 2024; Chang et al., 2021; Chang et al., 2025). The availability of support is ensured by strategic backing from managers and collaboration among colleagues to create a learning-friendly environment (Panda et al., 2022; Shin et al., 2020).

The dependence of a specific adaptive capacity element on the application of defined leadership methods is presented (see Table 1).

Table 1. Leadership methods enhancing adaptive capacity

Adaptive Capacity			Leadership Methods		
Leadership Requirements and Their Specification			No.	Title	Type
Change (AP1)	Teamwork	Comprehensive Understanding	Y1	Work in different positions	Practices that promote employee teamwork and collaboration
			Y2	Work in different teams	
		Collective Responsibility	Y3	Delegation of responsibility	
			Y4	Team-based accountability	
		Motivation to Engage	Y5	Encouragement of personal self-expression	
			Y6	Emphasis on team spirit	
Consistency (AP2)	Nurturing of Values	Embodiment of Values	Y7	Value alignment of the leader	Conditions that encourage employees to adhere to organisational values
			Y8	Value alignment of employees	
		Representation of Values	Y9	Adherence to the code of ethics	
			Y10	Emphasis on the mission	
		Inspiration for Higher Purpose	Y11	Engagement in social activities	
			Y12	Leader's personal involvement	
Development (AP3)	Knowledge sharing	Integration of Knowledge	Y13	Use of instructions and procedures	Conditions ensuring accessibility of support for knowledge sharing
			Y14	Utilisation of employee feedback	
		Systematic Learning	Y15	Ensuring access to knowledge	
			Y16	Promotion of career development opportunities	
		Accessibility of Support	Y17	Emphasis on managerial support	
			Y18	Encouragement of peer support	

The effective application of leadership techniques depends on the ability of managers to identify their strengths and weaknesses in adaptive capacity. This is important for both the professional growth of managers and the development of the organisation. Although occasionally goals are achieved without these techniques, for example, due to employee initiative or a strong system (Sturm et al., 2017; Schweiger et al., 2020; Kaiser et al., 2019), such a path does not always ensure sustainability or strategic alignment (Ciulla, 2020; Kunz & Sonnenholzner, 2023). Therefore, the application of the techniques requires timely decisions by the manager.

2.3. Conceptual model of relationships

Based on the reviewed theories and the conceptualisation of leadership methods, a theoretical model is proposed to illustrate the causal relationships between leadership behaviour and organisational outcomes (see Figure 2).

The model assumes that leadership styles (transformational, adaptive, complexity) influence adaptive capacity through the mediation of leadership methods – the specific behavioural mechanisms through which leaders translate strategic intent into operational adaptability.

Adaptive capacity, in turn, reinforces organisational resilience by strengthening three interdependent components: change, consistency, and development.

The conceptual model serves as the foundation for the empirical investigation. It highlights leadership methods as the mediating behavioural mechanisms linking leadership styles to adaptive capacity, which subsequently reinforces organisational resilience. This framework guided the formulation of the research questions and the mixed-methods design applied in the study.

3. Empirical research methodology

Based on the theoretical framework that links leadership behaviour to organisational adaptive capacity, this study formulates the following research questions and hypotheses.

Research Questions:

- What leadership methods contribute most effectively to the enhancement of organisational adaptive capacity?
- How do these methods differ across sectors and adaptive capacity dimensions (change, consistency, and development)?
- How does the alignment between leader and employee values mediate the relationship between leadership methods and adaptive capacity?

Hypotheses (Hs):

- H1: Leadership methods emphasising team collaboration positively influence the change component of adaptive capacity.
- H2: Value-based leadership methods enhance the consistency component of adaptive capacity.
- H3: Knowledge-sharing methods strengthen the development component of adaptive capacity.

These research questions and hypotheses guide the empirical design and statistical testing presented in the following section.

The research was conducted in three main stages: (1) expert panel evaluation, (2) quantitative survey and data analysis, and (3) synthesis and interpretation of results.

In order to analyse the experience of business organisation managers in applying leadership methods that determine adaptive capacity, a qualitative research method was used. For the qualitative research – interview – 3 semi-open questions were created, linked to the methods used by managers, including: strengthening team cooperation (1); fostering values, revealing the influence of one's personal example (2); support in sharing knowledge (3).

These topics combine 4 quantitative research questions that show employees' intentions: to perceive cooperation as a means of overcoming difficulties and accepting challenges (D3); to adhere to the organisation's values (D1); to see motivating examples of managers (D2); to receive appropriate help from colleagues or experts in the event of a lack of knowledge (D4).

The panel consisted of 12 experts with at least 10 years of managerial experience in manufacturing, logistics, and service industries, all of whom held senior leadership or HR development positions. 9 companies from 3 different sectors of activity were selected as research participants: manufacturing, retail food trade and transportation services. Companies differ not only in their size and geographical location, but also in their operational autonomy: 5 companies operate as independent economic units; 3 companies operate as part of the same trade alliance; 8 structural divisions belonging to one international company operate in 8 European countries. These companies are united by a single operational status – a business organisation engaged in commercial activities and seeking profit.

Data were collected from 30 respondents participating in the interview, anonymous questionnaires were collected from 3370 employees (see Table 2).

In conducting a quantitative study, data were calculated using SPSS (Statistical Package for Social Sciences) software (v.29.0.0) and a survey system. In conducting a quantitative study data analysis, the following calculations

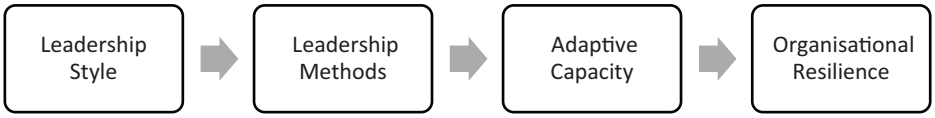


Figure 2. Conceptual model linking leadership behaviour, adaptive capacity, and organisational resilience

Table 2. The number of organisations and their employees participating in the quantitative study

Sector	Division / Company		Empirical Research Indicators and Data			
			Qualitative Research	Quantitative Research		
Title (Code)	Country	Code	Respondent Code	Number of Employees	Sample (95/5)	Valid Questionnaires
Construction materials manufacturing (G)	France	G1	G1/I; G1/II	1975	322	326
	Belgium	G2	G2/I; G2/II	1585	309	311
	Germany	G3	G3/I; G3/II	1260	295	296
	UK	G4	G4/I; G4/II	1070	283	286
	Poland	G5	G5/I; G5/II	450	207	209
	Spain	G6	G6/I; G6/II	395	197	198
	Lithuania	G7	G7/I; G7/II	335	179	186
	Kitos šalys	G8	G8/I; G8/II	1356	300	303
	Sector total:		16	8026	2092	2115
Retail food trade (M)	Lithuania	M1	M1/I	97	78	83
		M2	M2/I	139	102	111
		M3	M3/I	93	75	83
		M4	M4/I; M4/II; M4/III; M4/IV	3102	342	366
	Sector total:		7	3431	597	643
Transport and logistics services (P)	Lithuania	P1	P1/I	165	116	138
		P2	P2/I	71	60	62
		P3	P3/I	85	70	72
		P4	P4/I; P4/II; P4/III; P4/IV	2389	331	340
	Sector total:		7	2710	577	612
Research total:			30	14167	3266	3370

were performed: distribution of interval characteristics according to the normal law, evaluating their asymmetry (kurtosis and kurtosis) coefficients; interval variables, presenting the mean and standard deviation (mean ± SD) and qualitative variables, presenting the absolute number (n) and percentage expression (%); Pearson's Chi-square (c2) test was used to compare qualitative characteristics between groups; One-Way ANOVA (F) and Kruskal-Wallis (H) methods were used to compare between groups, depending on the distribution of characteristics and the sizes of the compared groups; binary logistic and linear regression analysis to assess the effectiveness of the applied management methods; The following significance levels were used for statistical hypotheses: $p < 0.05$ – statistically significant and $p > 0.05$ – statistically insignificant.

After detailing the methodological aspects of the study, the philosophical foundations and ethical principles of the study were assessed in order to ensure responsibility of the scientific process and adherence to values.

4. Qualitative study insights into leadership methods

Managers use a variety of methods to enhance team collaboration. By involving employees in different positions (Y1), they aim to "acquire new skills and work more closely together" (M3). Rotation helps employees better understand the challenges of their positions (M1). Working in different teams (Y2) promotes understanding of organisational processes and information flows (G1); employees "regularly participate in team meetings" (G3). Managers also create teams to solve specific problems (G5) and use team rotation (G8).

Delegation of responsibility (Y3) allows for faster decision-making (P1). Team accountability (Y4) is based on shared goals, regular communication, and a reward system (G2), where "team members are held accountable for shared results" (G5), and their progress is measured through reports (G7). Personal expression is also encouraged (Y5), which is "considered a significant contribution" (P2), and unique experience is used for organisational activities (P1); rewards increase intrinsic motivation (P4). Managers emphasise team spirit (Y6) when facing challenges (G6) and foster it during morning meetings (M2).

Leadership methods for fostering values and sharing knowledge. Managers ensure the compliance of values (Y7) so that they are understood and applied (M1–M4). Employees are involved in the creation of values (G2) and their support (G5), aiming for their natural integration (Y8). Values are also important in the selection process (G1), and knowledge of them is considered a prerequisite (P2). Managers also emphasise the importance of adhering to a code of ethics (Y9) (G3, G4), which helps to resolve difficult situations (G8).

The mission becomes clear to employees when managers emphasise it (Y10), participate in its implementation (G4, G6) and ensure that employees have the necessary resources (P4). Social responsibility is implemented by involving employees in initiatives (Y11), which include volunteering (G2), support for care institutions (G5) or environmental protection (G7) (Riaz, 2024; Mukhuty et al., 2022; Tekleab et al., 2021). Managers' involvement in daily activities (Y12) helps to set a valuable example (M1–M3, P1, P3).

Knowledge sharing practices in organisations. Managers structure activities by applying instructions and procedures (Y13), which are followed by all employees (M2, M4). Employees turn to their manager or colleagues for consultations (P2). Feedback gathering (Y14) helps to identify knowledge needs (G4) and build a knowledge base (G7).

Learning platforms (Y15), internal training, courses and seminars (M2, M3, P1) are used to access knowledge. Career opportunities (Y16) motivate employees to learn and share knowledge (G1–G6, P3, P4).

In some companies, managerial advisory support for knowledge management (Y17) is emphasised (G3), and peer support (Y18) is considered an important form of knowledge dissemination (M1).

5. Quantitative research results revealing weak areas of adaptive capacity in organisations

Primarily, companies in the manufacturing sector were analysed. The gaps in the adaptive capacity "Consistency" (AP2) were identified according to questions D1 and D2: the cultivation of values is most difficult in G4 (2.76±1.05), and the example of managers is least visible in G1 (2.92±1.19). The gaps in the "Development" (AP3) (D4) indicate that some employees do not know where to turn for help: G1 (29.1%), G3 (28.7%), G6 (28.3%), G8 (28.1%) (see Tables 3, 4).

In the retail sector, the weakest "Consistency" (AP2) area (D2) was recorded in the M4 company (2.94 ± 0.92), and the "Development" (AP3) gap according to D4 – M1 (25.3%) and M4 (29.0%) employees would not know where to turn in case of lack of knowledge (see Tables 5, 6; Figure 3).

In the transport services sector, the weak "Change" (AP1) area (D3) expression is lowest in P3 (25.0%). Fostering values (AP2, D1) is weak in P2 (2.84 ± 0.71), P3 (2.88 ± 0.77) and P4 (2.39 ± 0.77). D4 responses indicate problems with accessibility of help (AP3) in P3 (22.2%) and P4 (15.6%) (see Tables 7, 8).

Table 3. Comparison of employees' responses to Likert-Scale questions in manufacturing sector companies

Code	Question content		G1	G2	G3	G4	G5	G6	G7	G8	H	p
			n = 326	n = 311	n = 296	n = 286	n = 209	n = 198	n = 186	n = 303		
	No	Topic	1 gr.	2 gr.	3 gr.	4 gr.	5 gr.	6 gr.	7 gr.	8 gr.		
AP2 (1)	D1	Fostering values	3.46± 1.18	3.85± 1.25	3.12± 1.07	2.76± 1.05	3.52± 0.86	3.42± 0.83	3.45± 0.94	3.01± 1.12	200.48	<0.001
AP2 (2)	D2	Leadership example	2.92± 1.19	3.78± 1.26	3.10± 1.16	3.12± 1.19	3.53± 0.83	3.02± 0.91	3.32± 0.93	3.15± 1.11	131.09	<0.001

Table 4. Comparison of employees' responses to general questions in manufacturing sector companies

Code	Question content		G1	G2	G3	G4	G5	G6	G7	G8
	No	Topic	n = 326	n = 311	n = 296	n = 286	n = 209	n = 198	n = 186	n = 303
AP1	D3	Understanding the meaning of collaboration	128 (39.3%)	119 (38.3%)	115 (38.9%)	130 (45.5%)	110 (52.6%)	71 (35.9%)	88 (47.3%)	154 (50.8%)
AP3	D4	Accessibility of support	95 (29.1%)	194 (62.4%)	85 (28.7%)	173 (60.5%)	81 (38.8%)	56 (28.3%)	60 (32.3%)	85 (28.1%)

Table 5. Comparison of employees' responses to Likert-Scale questions in retail sector companies

Code	Question content		M1	M2	M3	M4	H	p
			n = 83	n = 111	n = 83	n = 366		
	No	Topic	1 gr.	2 gr.	3 gr.	4 gr.		
AP2 (1)	D1	Fostering values	3.70 ± 0.68	3.65 ± 0.77	4.13 ± 0.81	3.37 ± 1.08	42.10	<0.001
AP2 (2)	D2	Leadership example	3.60 ± 0.78	3.82 ± 1.08	4.18 ± 0.98	2.94 ± 0.92	131.72	<0.001

Table 6. Comparison of employees' responses to general questions in retail sector companies

Code	Question content		M1	M2	M3	M4	c^2	p
	No	Topic	n = 83	n = 111	n = 83	n = 366		
AP1	D3	Understanding the meaning of collaboration	63 (75.9%)	54 (48.6%)	53 (63.9%)	176 (48.1%)	25.68	<0.001
AP3	D4	Accessibility of support	21 (25.3%)	63 (56.8%)	44 (53.0%)	106 (29.0%)	42.93	<0.001

Area		G								M				P			
		G1	G2	G3	G4	G5	G6	G7	G8	M1	M2	M3	M4	P1	P2	P3	P4
AP1		Y2	Y4	Y2	Y4	Y2 Y4	Y6	Y4	Y2 Y4	Y1 Y4	Y6	Y1 Y4	Y4	Y3 Y5	Y5	–	Y5
AP2	(1)	Y8	Y8	Y9	Y9	Y8	Y8	Y8	Y9	Y7	Y7	Y7	Y7	–	Y8	–	–
	(2)	Y11	Y11	Y10	Y10	Y11	Y10	Y11	Y10	Y12	Y12	Y12	Y10	Y12	–	Y12	Y10
AP3		Y16	Y14 Y16	Y17	Y14 Y16	Y14	Y16	Y14	Y16	Y18	Y13 Y15	Y13 Y15	Y13	Y15	Y13	Y16	Y16

** Methods applied effectively are marked in green, ineffectively in red, and unproductively in gray*

Figure 3. Map of adaptive capacity outcomes

Table 7. Comparison of employees' responses to Likert-scale questions in transport services sector companies

Code	Question content		P1	P2	P3	P4	H	p
			n = 138	n = 62	n = 72	n = 340		
	No	Topic	1 gr.	2 gr.	3 gr.	4 gr.		
AP2 (1)	D1	Fostering values	3.38 ± 0.78	2.84 ± 0.71	2.88 ± 0.77	2.39 ± 0.77	129.47	<0.001
AP2 (2)	D2	Leadership example	3.84 ± 0.76	3.31 ± 0.72	3.58 ± 0.92	3.07 ± 0.96	74.99	<0.001

Table 8. Comparison of employees' responses to general questions in transport services sector companies

Code	Question content		P1	P2	P3	P4	χ^2	p
	No	Topic	n = 138	n = 62	n = 72	n = 340		
AP1	D3	Understanding the meaning of collaboration	70 (50.7%)	19 (30.6%)	18 (25.0%)	102 (30.0%)	22.48	<0.001
AP3	D4	Accessibility of support	46 (33.3%)	19 (30.6%)	16 (22.2%)	53 (15.6%)	21.25	<0.001

Considering the identified weak areas, the following analysis assesses the effectiveness of the methods used by managers (Y1–Y18).

6. Effectiveness of leadership methods affecting situational awareness

To enhance team collaboration among employees, the most effective method identified was the involvement of employees in different positions (Y1). Applying this method increases the likelihood that employees will perceive teamwork as support in overcoming challenges by more than three times (OR = 3.49, $p < 0.001$). Other effective methods include team accountability (Y4) (OR = 1.67, $p < 0.001$), delegation of responsibility (Y3) (OR = 1.55, $p < 0.019$), and involvement in different teams (Y2) (OR = 1.20, $p < 0.048$).

To foster employee motivation in supporting organisational values, the most effective method was identified as the value alignment between the leader and the organisation (Y7). The application of this method most strongly encourages employees to adhere to organisational values ($\beta = 0.31$, $p < 0.001$). Another effective method was the value alignment between employees and the organisation (Y8) ($\beta = 0.22$, $p < 0.001$).

When analysing the impact of the leader's personal example on the cultivation of organisational values, the leader's personal involvement in various organisational activities (Y12) was found to be the most effective. This method most strongly motivates employees to learn from their leaders by observing their value-driven decisions ($\beta = 0.26$, $p < 0.001$). Additionally, employee engagement in social responsibility initiatives (Y11) was also deemed effective ($\beta = 0.11$, $p < 0.001$).

In promoting knowledge sharing among employees, the most effective method was the ensuring of knowledge accessibility (Y15). Applying this method nearly triples the likelihood that employees will receive help from colleagues or experts in case of a knowledge gap (OR = 2.91, $p < 0.001$). Other effective methods include utilising employee feedback (Y14) (OR = 2.53, $p < 0.001$) and using instructions and procedures (Y13) (OR = 2.15, $p < 0.001$).

Based on the leadership methods applied by managers, a map of adaptive capacity outcomes was constructed (see Figure 3).

This map illustrates the impact of specific leadership methods on both the weak and strong areas within the analysed companies. Weak areas reflect the ineffectiveness of the applied methods and indicate the need for their adjustment. In contrast, strong areas demonstrate the effectiveness of methods and suggest the potential to enhance or leverage their advantages to offset deficiencies. Neutral areas point to non-impactful application of leadership methods, implying that certain managerial actions are insufficient to ensure desired adaptive capacity outcomes.

7. Discussion

The discussion interprets the main empirical findings through the lenses of transformational, adaptive, and complexity leadership theories, emphasising how specific leadership methods operationalise these theoretical perspectives in the context of organisational adaptive capacity.

The study revealed a significant impact of leadership styles on adaptive capacity outcomes in business organisations. These results support the assumptions previously raised in theoretical sources that teamwork, values-building, and knowledge-sharing practices are essential for strengthening organisational resilience (Driskell et al., 2017; Banks et al., 2021; Meher et al., 2024).

The impact of styles with employee rotation in higher positions (Y1) and teams (Y2) on the change (AP1) component was particularly pronounced. This suggests that being able to look at the organisation's activities from different perspectives is very important for properly adapting to changing conditions. These results align with adaptive leadership theory (Heifetz, 1994), which emphasises mobilising individuals to confront challenges through collective learning. The strong effect of team-based responsibility and rotation practices indicates that adaptability emerges not from hierarchical control, but from distributed participation and mutual adjustment – a core tenet of adaptive leadership in dynamic contexts.

The results of values-building (AP2) emphasised the importance of the leader's personal example and the alignment of values between the leader and employees for work. In organisations where values were embedded in daily activities and employees had the opportunity to contribute to their creation, greater engagement and consistency were observed. The positive impact of value alignment and the leader's personal example supports transformational leadership theory (Bass, 1985), highlighting moral modelling and value-based influence as central to sustaining adaptive consistency. When leaders embody organisational values and connect work to a higher mission, they reinforce purpose and commitment that stabilise change processes.

In the area of knowledge sharing (AP3), the importance of knowledge accessibility (Y15) and feedback use (Y14) emerged. This shows that technological solutions alone are not sufficient; an environment in which employees feel safe to ask for help and share their experiences is also essential. The significance of knowledge accessibility and feedback mechanisms reflects principles of *complexity leadership theory* (Uhl-Bien et al., 2011), which frames organisations as adaptive systems sustained by learning and information exchange. In this perspective, leadership operates through the facilitation of knowledge flows and enabling conditions rather than direct command. Collectively, these findings offer multilevel empirical support for the integrative theoretical model presented in Figure 2, showing that adaptive, transformational, and complexity leadership perspectives converge around a shared behavioural core conceptualised in this study as leadership methods.

The results of the discussion reveal that the effectiveness of leadership methods is closely related to the consistency of their application, employee engagement and the practical implementation of the organisation's values.

Conceptually, this study advances leadership theory by defining leadership methods as the behavioural mechanisms through which established leadership styles are enacted within organisational contexts. This operational perspective elucidates how leadership actions contribute to adaptive capacity and resilience, thereby bridging the gap between abstract theoretical models and practical managerial practice.

Overall, the empirical results support all three hypotheses (H1–H3), confirming that leadership methods function as behavioural mediators between leadership styles and adaptive capacity dimensions, change, consistency, and development. The statistical analyses (ANOVA, regression) confirmed that each hypothesised relationship was significant ($p < 0.001$), thereby validating the theoretical assumptions outlined in the conceptual framework.

Future research suggests that further analysis by sector and the observed impact, assessing the benefits of integrating strategic leadership methods for adaptive capacity.

Theoretical implications. This study extends contemporary leadership theory by clarifying how behavioural mechanisms translate abstract leadership styles into organisational adaptability. It advances adaptive leadership theory by operationalising its behavioural dimensions through the concept of leadership methods. In addition, it complements transformational leadership theory by illustrating how moral influence and value alignment operate as structural drivers of adaptive consistency.

Managerial implications. From a managerial standpoint, the findings provide several actionable insights:

Encourage team-based responsibility and cross-functional collaboration to support adaptive change.

Strengthen leader–employee value alignment through transparent communication and consistent role modelling.

Develop knowledge-sharing systems and feedback loops that promote continuous learning and innovation.

Embed behavioural leadership methods into development programmes to enhance long-term organisational resilience.

Monitor adaptive capacity as a key performance indicator of leadership effectiveness.

8. Conclusions

The study shows that effective leadership for organisational resilience arises not merely from style but from the behavioural mechanisms, or leadership methods, that enable leaders to motivate teams, align values, and promote knowledge sharing.

The theoretical concept of leadership methods that determine adaptive capacity was defined, revealing that adaptive capacity is the ability not only to adapt to changes, but also to manage them purposefully, based on employee involvement, adherence to values, and knowledge sharing. The study confirmed that these abilities depend on the applied leadership methods, which affect the flexibility and ability of the organisation to adapt.

The practical application of leadership methods in business organisations has shown that the most effective methods are those that include team cooperation, employee empowerment, values-based leadership, and continuous learning through practice. The empirical study identified 18 leadership methods, the application of which contributes to the development of three main elements of adaptive capacity: strategic thinking, operational flexibility, and value integrity.

The study identified areas of weak adaptive capacity in the participating companies, such as insufficient employee engagement, lack of value consistency, and limited ability to respond quickly to change. Combinations of methods focused on strengthening collaboration, decentralised decision-making, and leadership principles that promote a learning organisation were found to be particularly effective in improving these areas.

The most effective leadership approaches identified during the study to help improve weak areas of adaptive capacity include value-based leadership, participatory leadership, transformational leadership, and learning-based leadership models. The study was conducted in European business organisations and may not reflect sectoral differences in other regions. Future research should focus on adaptive leadership in the context of digital transformation. These approaches, when applied in an integrated manner, consistently strengthen an organisation's ability to adapt, promote innovation, and create a sustainable and resilient organisational culture.

The results confirmed all proposed hypotheses (H1–H3), empirically demonstrating that specific behavioural leadership methods strengthen corresponding adaptive capacity dimensions and, in turn, foster organisational resilience.

The study contributes to the leadership and resilience literature by introducing leadership methods as an actionable and empirically supported behavioural construct that connects leadership theory with adaptive capacity. This framework integrates insights from transformational, adaptive, and complexity leadership theories into a coherent model that explains how leaders strengthen organisational resilience through everyday practices.

The study has some limitations related to sample size and sectoral scope. Future research could extend the analysis to public sector organisations and longitudinal data to test the stability of leadership methods over time.

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