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Continuity and Accessibility in Higher Education Amid Armed Conflict

Abstract

This paper investigates HEIs' adaptive strategies to sustain operations and activities amid armed conflict, focusing on an emergency-driven shift to a cloud university model. Drawing on organisational theory as well as institutional and conflict management research, we present interview-based case studies of three HEIs affected by war. The findings highlight adaptive responses such as agile HE governance, the use of cloud-based services, informal networks, international cooperation, and institutional transformation. Across all cases, crises emerge not only as threats but also as catalysts for innovation, restructuring, and the reassertion of institutional missions.

Key words

armed conflict, institutional adaptation, organisational theory, cloud university, higher education resilience

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Kontinuität und Zugänglichkeit der Hochschulbildung inmitten eines bewaffneten Konflikts

Abstract

Dieses Paper untersucht die Anpassungsstrategien von Hochschulen, um ihren Betrieb – insbesondere die Lehre – im Kontext bewaffneter Konflikte aufrechtzuerhalten. Besondere Berücksichtigung wird dem krisenbedingten Übergang zu einem Cloud-University-Modell geschenkt. Basierend auf organisationstheoretischen Ansätzen sowie Forschung zu institutionellem Wandel und Krisenmanagement stellen wir interviewbasierte Fallstudien von drei vom Krieg betroffenen Hochschulen vor. Die Ergebnisse verdeutlichen adaptive Reaktionen wie agile Hochschulsteuerung, den Einsatz cloud-basierter Dienste, informelle Netzwerke, internationale Kooperationen und institutionelle Transformation. Über alle Fälle hinweg zeigen sich Krisen zwar als massive Bedrohung, aber auch als Katalysatoren für Innovation, Umstrukturierung und die (Wieder-)Besinnung auf institutionelle Kernaufträge.

Key words

Bewaffneter Konflikt, institutionelle Anpassung, Organisationstheorie, Cloud-Universität, Resilienz im Hochschulwesen

1 Introduction

Higher education (HE) systems around the world have been facing numerous and severe disruptions over the past decade, and such crises continue to pose some of the greatest challenges to the sector.

Given rising geopolitical instability, HE systems must enhance emergency preparedness and institutional resilience. Armed conflicts severely disrupt HE, as seen in Ukraine, Israel post-2023 Hamas attacks, and the ongoing Gaza war. Beyond collateral damage, HE institutions (HEIs) are increasingly targeted in acts of “scholasticide”, notably in Syria (Kayyali, 2024) and Gaza (Barakat et al., 2025).

This paper examines how HEIs adapt organisationally to war and conflict, with a focus on the use of cloud technologies. Bridging HE research, crisis resilience, and organisational/strategic management theory, it addresses a gap in literature on adaptation in high-risk environments. Through a multiple case study of three HEIs in conflict zones, it explores strategies for maintaining accessibility and continuity.

2 Literature review

This review explores how HEIs adapt to war and conflict. While rarely applied in HE (Heaton et al., 2023), organisational theory provides key insights into adaptive strategies, complemented by crisis and HE management literature, as well as educational technology research.

2.1 Organisational adaptation in a context of conflict

Wars and armed conflicts are external shocks to HEIs, triggering profound disruptions and abrupt changes across all dimensions of their operations. In this context, HEIs must go beyond operational efficiency by strategically leveraging and dynamically reconfiguring their resources to adapt.

In this regard, the strategic management literature holds a rich body of knowledge with a view to (1) resource orchestration via the resource-based view – RBV (Wernerfelt, 1984; Teece et al., 1997; Helfat et al., 2023) – and (2) dynamic capabilities (e.g., Heaton, 2023).

RBV offers a valuable lens for identifying and leveraging strategic resources during crises. It posits that organisational survival and performance depend on resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). For HEIs, this includes human capital and institutional knowledge – core to both daily operations and crisis response (e.g., Winter, 1987; Bergh et al., 2025). However, wartime disruptions such as displacement and psychosocial stress require strategic redeployment of these assets. Digital infrastructure and online learning capabilities also emerge as critical resources for sustaining services under extreme conditions. Still, crises complicate resource identification and coordination due to time constraints, limited control, and reduced flexibility (e.g., Flammer & Ioannou, 2021).

Thus, under crisis conditions, dynamic capabilities are crucial as they enable organisations to adapt and redeploy resources when needed (Chauvin et al., 2024). It helps to explain how HEIs scan the swiftly changing environment to adapt to their emerging needs, how they seize the sensed opportunities, and how they reconfigure (or orchestrate) their limited resources in a way that creates most value and helps them to manage change.

Effective orchestration of diverse resource types is especially critical: Unlike private firms, HEIs must navigate both competitive market dynamics, such as the race for funding and talent, and the constraints of highly regulated, institutionally embedded systems (Dorobantu et al., 2017). In times of crisis, financial resource management becomes paramount, as underfunding, unstable revenue streams, and rising operational costs directly challenge institutional resilience. These pressures highlight the limits of traditional strategic frameworks alone and point to the importance of integrating crisis resilience perspectives. The following section explores how HEIs confront such disruptions by drawing on crisis management and HE literature to sustain their core functions under acute stress.

2.2 HEIs in conflict – institutional resilience and adaptation

Previously underexplored (Milton, 2018), the role of HE in conflict was shifted into focus by Millican (2018) who examines HEIs' multifaceted roles in conflict, peace-building, and resistance. Milton and Barakat (2016) name four central challenges for HE in conflict-affected contexts: (1) destruction of infrastructure, (2) mass displacement of students and staff, (3) deteriorating educational conditions due to ongoing violence, and (4) constrained institutional resilience.

According to the *Education Under Attack report* (GCPEA, 2022), HEIs experienced armed violence in 28 conflict-affected countries during 2020–2021, with Ukraine the sole European case due to ongoing Russian aggression since 2014. Heleta (2015) points to examples in countries like Afghanistan, Iraq, Somalia, South Sudan, and Syria, where HE systems have faced collapse, disruption, and infrastructure damage. In Gaza, campus destruction, displacement, and systemic collapse have been met with inadequate international aid (Barakat et al., 2025). Israeli HEIs also suffered major disruption after the 2023 attacks and missile strikes, prompting closures and a shift to virtual learning (Avdiel & Blau, 2025).

Researching key risks to HEIs' stability during wartime, we draw on Helsloot and Jong's (2006) typology, which distinguishes (1) risks intrinsic to the academic sector, (2) risks arising from HEIs' societal embedment (Millican, 2018), and (3) vulnerabilities inherent to their organisational nature. Wars constitute type (2)-risks, while also deepening institutional fragilities (type (3)), illustrating the interdependence between systemic and institutional risks (Doronina et al., 2025), such as financial destabilisation, human capital erosion through displacement and conscription, and operational disruptions – examples of critical resource erosion in the framework of the RBV.

Protsyk (2025), Doronina et al. (2025) and Reznikova (2022) highlight significant underfunding during wartime, exemplified in Ukraine: formulaic efficiency-based funding was cancelled, budgets cut, and tuition losses accrued due to lower enrol-

ment (Doronina et al., 2025). Simultaneously, HEIs face rising adaptation costs; material and technical bases were damaged or destroyed, and some institutions in combat zones were forced to relocate (Doronina et al., 2025; Antoniuk, 2023). Staff reductions lead to increased workloads – “personnel famine” (Doronina et al., 2025) – while staff and students also face social risks such as mental health problems, reduced motivation and team conflicts. Here, the dynamic capabilities perspective helps explain how HEIs attempt to integrate, reconfigure, and renew internal and external resources to adapt and survive in such volatile environments.

Hazzan & Zahav (2022) stress the need for holistic risk management in HE, while Protsyk (2025) highlights “cultivating HE’s resilience during the active phase of armed conflict” as key to a country’s recovery (p. 280). Resilience is defined by the World Bank (2013) as “the ability to recover, perform or even grow or transform in adversity” (cited in Protsyk, p. 281). Ritesh (2019) adds that a resilient education system ensures safe, equitable access and preserves learning outcomes during crises. Protsyk (2025) emphasises international cooperation, notably via the *European Higher Education Area* (EHEA), as vital for building HE resilience, as well as the protection of the well-being of staff and students via flexible and personalised study arrangements. Kuzheliev et al. (2023) and Polianovskyi et al. (2021) point to the role of remote learning during war, and highlight adjustments in distance learning, lab work, and digital skill development. The next section will explore technology-driven approaches, notably cloud-based solutions for continuous educational delivery amid conflict in more detail.

2.3 Cloud-based solutions as adaptive strategy

The previous sections illustrated how HEIs cope with crises from the perspective of organisational and crisis management. Bridging these insights, it becomes clear that strategic resource coordination must also encompass technological adaptability in crisis response. This paper echoes Kuzheliev et al. (2023) in emphasising remote

learning as a critical shift away from vulnerable, location-bound models. Specifically, it explores the “cloud university” as a temporary, cloud-based operational mode that sustains educational continuity. Cloud computing’s capacity to deliver cost-effective, secure, and scalable services is well established (Alharthi et al., 2015; Kiryakova, 2017), and in conflict-affected contexts, these technologies bolster HEI resilience by supporting flexible, accessible, and uninterrupted instruction.

The cloud university model addresses HEI service challenges by enhancing accessibility, allowing students and staff to use internet-capable devices anytime and anywhere. Studies comparing traditional university IT services (Sultan, 2010) with cloud models (Mathew, 2012; Alharthi et al., 2015) show that while traditional systems struggle with limited lab access, maintenance delays, and mobility constraints, cloud solutions reduce complexity through scalable resources and lower hardware requirements. Such features are especially valuable in conflict zones, where infrastructure damage and displacement disrupt education (Milton & Barakat, 2016). Cloud platforms can ensure continuity by enabling data replication, disaster recovery, and flexible resource configuration (Youssef, 2012).

For conflict-affected HEIs, cloud flexibility supports curricula tailored to institutional needs, particularly in digital skills, use of learning management software (LMS), and MOOCs (Glazunova & Shyshkina, 2018; Habib, 2023). Cost-effectiveness is another strategic advantage: by lowering infrastructure and maintenance costs, cloud services help mitigate funding cuts and rising expenses (Alharthi et al., 2015), with some providers offering discounts for students and staff in war-affected regions (Kiryakova, 2017).

In light of these advantages, it must be noted that cloud-based solutions are not without limitations. Technical concerns like service outages and limited bandwidth can still disrupt learning processes and class schedules (Alharthi et al., 2015). Although fault-tolerant architectures help mitigate such disruptions (Hasan & Goraya, 2018), cloud universities also face strategic vulnerabilities, notably the growing dependence on third-party providers for infrastructure, data storage, and software services. This

reliance can raise concerns about data security, sovereignty, long term cost implications (Tarasenko et al., 2025), and potentially reduced institutional control over core educational functions, and must therefore also be reflected.

The following empirical section examines how conflict-affected HEIs have implemented adaptive strategies, with a special consideration of cloud technologies sustaining education amid disruption.

3 Methods

Due to limited empirical research on HEIs' organisational adaptation and cloud use in armed conflicts, this study uses an inductive, multiple case-study approach. It analyses three purposefully selected HEIs via altogether 57 semi-structured interviews⁷ with HEI representatives and external experts, complemented by ethnography and archival document analysis (see figure 1 for details on cases and data gathering).

7 The study was conducted in accordance with ethical standards. All participants provided informed consent for the use and publication of their responses, and anonymity was ensured.

Case 1: University of Belgrade	Case 2: Sumy State University (SSU)	Case 3: Tel-Hai College
• Largest HEI in Serbia. • Affected by Yugoslav wars in the 1990s. • Recently experiencing student protests. • Ongoing tensions around academic freedom and governance.	• Among the largest universities in Ukraine. • Strongly affected by the Russian full-scale invasion since 2022. • HEI at risk due to proximity to the epicenter of conflict.	• Among the leading HEIs in northern Israel. • Strongly affected by the tensions with Hezbollah in 2024. • Counted as “unstable HEI” until recently, due to proximity to the epicenter of the conflict.
• 13 semi-structured interviews with staff, (former) students and external experts who experienced/studied the 1990s conflicts. • Review of archival documents.	• 23 semi-structured interviews with university staff and external stakeholders (e.g. ministry representatives). • Ethnographic observation by on-site partners.	• 21 semi-structured interviews with HEI staff and external stakeholders (e.g. ministry representatives). • Ethnographic observation by on-site partners.

Fig. 1: Case selection and data gathering

The gathered data was analysed using a thematic synthesis approach according to Thorne et al. (2004), focusing on aggregated insights rather than individual statements. This method enabled the identification of recurring patterns, shared challenges, and institutional responses across all interviewees within each case – and helped to ensure anonymity. Such aggregated approach is especially useful in our case-study design with three distinct institutions, as it enables meaningful comparison by identifying common patterns of resilience and adaptation across diverse contexts.

4 Results

Findings are presented emphasising the distinctive characteristics of each case. First, we outline the conflict’s impact on the institution. Next, we examine HEIs’ strategic adaptations to these challenges. Finally, we explore the role of innovative (cloud) technologies and digital equity in sustaining educational continuity.

4.1 Case 1: University of Belgrade (UB)

During the 1990s, Serbia's HE system was profoundly disrupted by the Yugoslav Wars, sanctions, political instability, and authoritarian rule, resulting in four main challenges: international isolation, financial crisis, academic brain drain, and political pressure.

Impacts on the institution

During the 1990s, Serbian HE faced severe disruption due to armed conflict and international sanctions, which isolated academia from global networks, compounded by poor internet infrastructure and restrictive visa regimes. Political control intensified as the government demanded institutional loyalty, with legislative changes enabling close oversight and punitive measures against dissent, undermining academic freedom and autonomy – officially for purposes of “depoliticising”.

Although the UB's infrastructure was largely spared – aside from the 1999 NATO bombing – economic sanctions triggered a deep financial crisis. Funds prioritised (insufficient) faculty salaries, leaving no resources for maintenance or development, and shifting institutional focus to survival. This led to deteriorating infrastructure. Moreover, this period saw a mass exodus of students and qualified faculty, many of whom did not return, resulting in a lasting brain drain. Prolonged isolation left Serbian HE lagging in key reforms like the Bologna Process and digitalisation. Graduation times rose dramatically between 1985 and 2005 (e.g., in medicine from 7.28 to 11.03 years; in social sciences from 6.70 to 8.698), with meaningful European alignment only beginning in 2006–2007.

Strategic adaptation

Despite severe disruptions, the UB demonstrated considerable adaptability. A key response was the creation of the Alternative Academic Educational Network

8 As per data from the Serbian Ministry of Education and Sports, 2005.

(AAEN), a semi-formal platform for dismissed academics and marginalised students. The AAEN enabled knowledge exchange under restrictive conditions, encouraged interdisciplinary and Bologna-aligned practices, and facilitated access to resources via informal channels. Educators shared teaching materials through what was jokingly called the “right to copy,” and improvisation was widespread – described as “making a machine out of spare parts that don’t really fit.”

Informal networks also sustained academic collaboration, both domestically and internationally. As one interviewee noted: “We kept in touch through personal contacts. Officially, we were cut off, and that was the most frustrating part”. International support from the Council of Europe and the Soros Foundation via grants and exchanges was vital, though accepting it risked accusations of disloyalty.

The role of cloud and digital equity

At the time, Serbia’s digital infrastructure was not sufficiently developed to support cloud technologies. As one respondent put it, digital tools were “at a rudimentary stage”. Email and basic online services became more accessible only around 1999, primarily used by researchers to maintain limited contact with the international academic community.

4.2 Case 2: Sumy State University (SSU)

SSU has faced profound disruption since Russia’s full-scale invasion in February 2022, including physical damage, infrastructural instability, administrative challenges, and psychological strain on staff and students.

Impacts on the institution

Despite the crisis, SSU retained its formal structure but suspended educational activities until April 1, 2022, to reassess safety. Staff were placed on leave, students given an unscheduled break, and university basements converted into bomb shelters for campus and community use. After resuming, SSU shifted to remote and asyn-

chronous teaching, building on COVID-19-era digital strategies. Administrative operations were hit hard: bonuses were cut, budgets trimmed, and some research projects paused. Teaching had to become more flexible, with adjusted deadlines and assessments to support students facing access and mental health challenges.

The university widely sustained physical damage from military activity, while repeated attacks on national energy systems disrupted electricity, heating, water, and internet, affecting communication and campus operations. Many staff and students were displaced, internally and abroad, and ongoing insecurity caused significant stress. SSU responded with psychological support services and adaptive teaching methods to meet the needs of a dispersed student body, prioritising continuity and morale under extreme conditions.

Strategic adaptation

SSU responded to the crisis by decentralising governance and strengthening ties with local communities. Crisis response centres were set up, and the academic calendar was adjusted to start in August to reduce winter energy use.

Operations were modernised with administrative automation, hybrid formats, and remote tools like e-signatures for thesis defences, e-cabinets for teachers, and electronic document management. Resilience hubs with backup power and internet ensured continuity during blackouts, and bomb shelters were equipped for hybrid teaching during air raids. Support was prioritised for international students through phased evacuation and tailored academics. For Ukrainian students, 24/7 contact and supervision opportunities were installed. Digital tools supported communication with students and enabled flexible learning formats.

The crisis also expanded SSU's third mission. The university deepened its role in local education, mental health services, and workforce training, while partnering with national industrial clusters. A culture of trust and ethical engagement grew stronger. As one respondent said, "The war revealed human qualities ... people have

remained loyal”. SSU now prioritises adaptability and strategic scenario planning for future resilience.

The role of cloud and digital equity

SSU shows partial alignment with the cloud university model. While many educational and administrative functions – such as virtual classrooms, assessments, and data storage – have moved online, full integration is still underway. Key efforts include enhancing local digital infrastructure and establishing resilience points with power and connectivity for asynchronous learning in low-access areas.

To bridge the digital divide, international support has enabled student evacuations, equipment provision, and financial aid for vulnerable groups – crucial steps for maintaining access and academic inclusion during wartime.

4.3 Case 3: Tel-Hai Academic College

Tel-Hai Academic College in Israel was heavily affected by the outbreak of war after October 7, 2023. While initial conflict was in the south, northern hostilities involving Hezbollah placed Tel-Hai on the frontlines, creating immediate security threats and disrupting its academic and social fabric during a critical transition toward university status.

Impacts on the institution

The conflict forced Tel-Hai to shift from long-term planning to immediate crisis management. Governance moved to decentralised emergency teams working remotely, suspending regular functions like faculty meetings and research oversight. Enrolment, registration, and approvals were streamlined or deferred through digital and emergency channels. With northern Israel under attack, much of the civilian population of the region was evacuated and relocated. College facilities such as

classrooms, labs, dorms and offices became inaccessible; the campus was fully evacuated, and all operations became virtual.

Some research sites became military zones, halting experiments and requiring relocation of sensitive equipment. Faculty and staff moved to temporary host locations, enabling limited teaching and research. The closure of libraries and student centres disrupted the college's social and intellectual life. Approximately 60 % of the Tel-Hai community was displaced, and 20 % joined military reserves. War-related stress and disruptions created high anxiety.

Strategic adaptation

Tel-Hai swiftly adapted to the crisis with layered strategies. As conflict escalated, all teaching shifted online, with faculty operating from temporary locations and assignments managed digitally. Emergency teaching assistants were deployed, grading and participation policies adjusted, and digital infrastructure reinforced. Regular updates kept students informed, while prior experience from the COVID-19 pandemic aided the transition.

Despite the war, Tel-Hai advanced its goal of becoming a university, using the crisis to reaffirm its educational and research mission. Flexible pedagogy emerged, including asynchronous instruction, interactive forums, and personalised support for students in military service or under stress. Research in relevant fields pivoted to urgent issues like mental health and resilience, while outreach moved online through webinars and community programs.

The role of cloud and digital equity

Tel-Hai became a de-facto cloud university, shifting nearly all academic and administrative functions online. Faculty and students worked remotely, using cloud-based tools to maintain operations and governance without geographic centrality.

To address digital inequities, the college offered digital literacy workshops and trained faculty in inclusive remote learning design. Advisors monitored at-risk students, providing targeted support to uphold academic integrity and inclusion.

5 Discussion and conclusion

Despite vast differences in historical context, geopolitical landscape, and available technology, the three observed cases demonstrate a set of recurring strategic responses by HEIs operating under extreme duress.

With a view to governance, a shift from routine to crisis-driven decision-making could be observed: Tel-Hai established emergency task forces to replace standard academic processes; SSU decentralised authority through resilience hubs, automated administrative processes, and deployed e-governance tools to maintain continuity. In both cases, governance agility – reconfiguring resources and capabilities to respond to rapidly changing conditions – was central, illustrating key principles of the RBV and dynamic capabilities theory.

Dimension	University of Belgrade (1990s)	Sumy State University (2022-present)	Tel-Hai Academic College (2023/24)
Governance	Routine crisis-driven; emergency improvisation	Decentralised authority via resilience hubs and e-governance tools	Emergency task forces replacing standard processes
Teaching/Learning	Improvised seminars; personal connections; basic digital tools	Localised, asynchronous access; full online operations	Near-total virtualisation; rapid online transition
Informal Networks	Semi-clandestine redistribution of teaching materials (AAEN)	Institutional and community networks; international partnerships	Staff/alumni networks; community mobilisation
Institutional Transformation	Bottom-up experimentation integrated into curricula	Deepened community engagement	Advanced goal toward university status

Table 1 Common features between the three investigated cases

All three institutions rapidly shifted to remote teaching. In 1990s Belgrade, this involved improvised seminars, personal connections-based learning, and basic digital tools. Tel-Hai and SSU, building on COVID-19 experience, transitioned entire operations online within days. SSU emphasised localised, asynchronous access; Tel-

Hai achieved near-total virtualisation. Both addressed digital inequities, highlighting crisis-driven disparities. These shifts illustrate dynamic capabilities: adapting internal processes in real time rather than merely reacting to external shocks.

A shared feature across cases was the use of informal networks to bridge resource gaps and sustain key functions. AAEN in Serbia redistributed teaching materials through semi-clandestine means; Tel-Hai relied on staff and alumni ties and much like SSU, mobilised community and institutional networks. From an RBV perspective, such ties are valuable, rare assets offering adaptive advantages. All three also benefited from external support: NGOs in Belgrade, emergency aid at Tel-Hai, and international partnerships at SSU.

Finally, all three HEIs used the crisis as an accelerator for institutional transformation. UB saw bottom-up experimentation formally integrated into later curricula. Tel-Hai proceeded with its long-term goal of achieving university status, SSU used wartime adversity to deepen community engagement. In line with the World Bank's (2013) definition of resilience, they grew and transformed in adversity. These adaptations illustrate HEIs' dynamic capabilities to reconfigure routines and, from an RBV perspective, leverage unique assets to sustain advantage under crisis conditions.

For HEIs operating in conflict-affected or crisis-prone environments, these findings highlight the importance of investing in governance agility, robust digital infrastructure, and the cultivation of informal and external support networks. Developing modular curricula and flexible delivery modes can help institutions maintain continuity.

This study is limited by its reliance on interviews. For the UB, data are retrospective, recalling events from over 30 years ago, and current political sensitivities made recruitment difficult. At Tel-Hai and SSU, co-authors conducted interviews on-site, which improved access, but their direct involvement in the crisis could influence the co-construction of interview content. More research is needed to clarify the opportunities, but, importantly, also risks of cloud-based solutions for HEIs in crises.

References

- Alharthi, A., Yahya, F., Walters, R. J., & Wills, G. B. (2015). An overview of cloud services adoption challenges in higher education institutions. *Proceedings of ESaaS (CLOSER 2015)*, 102–109. <https://doi.org/10.5220/0005529701020109>
- Antoniuk, V. P. (2023). The war as a factor of upheavals and transformations in higher education: Experience of Ukraine. *IntechOpen*. <https://doi.org/10.5772/intechopen.109688>
- Avdiel, O., & Blau, I. (2025). Flexible learning spaces fostering innovation in higher education. In D. Olenik-Shemesh et al. (Eds.), *Proceedings of the 20th Chais Conference* (pp. 366–372). The Open University of Israel.
- Barakat, S., Heleta, S., & Cochrane, L. (2025). Analysis of two decades of aid flows to higher education in Palestine: implications for rebuilding destroyed higher education in Gaza. *Higher Education*. Advance online publication. <https://doi.org/10.1007/s10734-025-01414-2>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bergh, D. D., D’Oria, L., Crook, T. R., & Roccapiore, A. (2025). Is knowledge the most important strategic resource? A meta-analytic review. *Strategic Management Journal*, 46(1), 3–18.
- Chauvin, J., Inoue, C., & Poliquin, C. (2024). Resource redeployment as entry advantage in resource-poor settings. *Strategic Management Journal*. 1–32. <https://doi.org/10.1002/smj.3627>
- Dorobantu, S., Kaul, A., & Zelner, B. (2017). Nonmarket strategy and institutional economics: A review. *Strategic Management Journal*, 38(1), 114–140.
- Doronina, O., Yurchyshena, L., Bondarevska, K., Vechirko, I., & Kulinich, T. (2025). Identifying key risks to the stability of Ukrainian universities during wartime. *Problems and Perspectives in Management*, 23(2-si), 54–70. [https://doi.org/10.21511/ppm.23\(2-si\).2025.05](https://doi.org/10.21511/ppm.23(2-si).2025.05)
- Flammer, C., & Ioannou, I. (2021). Strategic management during the financial crisis. *Strategic Management Journal*, 42(7), 1275–1298.

- Glazunova, O., & Shyshkina, M. (2018). The Concept, Principles of Design and Implementation of the University Cloud-based Learning and Research Environment. *arXiv*. <https://doi.org/10.48550/arXiv.1807.08560>
- Global Coalition to Protect Education from Attack (GCPEA). (2022). *Education under attack 2022*. https://protectingeducation.org/wp-content/uploads/eua_2022.pdf
- Habib, M. (2023). Digital transformation strategy for developing higher education in conflict-affected societies. *Social Sciences & Humanities Open*, 8(1), 100627. <https://doi.org/10.1016/j.ssaho.2023.100627>
- Hasan, M., & Goraya, M. S. (2018). Fault tolerance in cloud computing environment: A systematic survey. *Computers in Industry*, 99, 156–172. <https://doi.org/10.1016/j.compind.2018.03.027>
- Hazzan, O., & Zahav, A. E. (2022, October 17). Three risks facing higher education. *Communications of the ACM*. <https://cacm.acm.org/blogcacm/three-risks-facing-higher-education/>
- Heaton, S., Teece, D., & Agronin, E. (2023). Dynamic capabilities and governance in higher education. *Strategic Management Journal*, 44(2), 520–548.
- Heleta, S. (2015). Higher education in post-conflict societies: Challenges and priorities. *Internationalisation of Higher Education Handbook*, 1, 2–16.
- Helfat, C. E., Kaul, A., Ketchen Jr., D. J., et al. (2023). Renewing the resource-based view. *Strategic Management Journal*, 44(6), 1357–1390.
- Helsloot, I., & Jong, W. (2006). Risk Management in Higher Education and Research in the Netherlands. *Journal of Contingencies and Crisis Management*, 14(3). <https://doi.org/10.1111/j.1468-5973.2006.00490.x>
- Kayyali, M. (2024). Stuck in the Limbo: Syrian Higher Education After 13 Years of War. In M. Kayyali (Ed.), *Advances in Higher Education and Professional Development* (pp. 296–310). IGI Global. <https://doi.org/10.4018/979-8-3693-1926-0.ch018>
- Kiryakova, G. (2017). Cloud services in education. *Trakia Journal of Science*, 15(4), 277–284. <https://doi.org/10.15547/tjs.2017.04.001>

- Kuzheliev, M., Zherlitsyn, D., Nechyporenko, A., Lutkovska, S., & Mazur, H. (2023). Distance learning as a tool for enhancing university academic management processes during the war. *Problems and Perspectives in Management*, 21(2), 23–30.
[https://doi.org/10.21511/ppm.21\(2-si\).2023.04](https://doi.org/10.21511/ppm.21(2-si).2023.04)
- Millican, J. (2018). The university's social role. In J. Millican (Ed.), *Universities and conflict* (pp 11–27). Routledge.
- Milton, S. (2018). Literature review: Universities and conflict. In J. Millican (Ed.), *Universities and conflict* (pp. 43–58). Routledge.
- Milton, S., & Barakat, S. (2016). Higher education as the catalyst of recovery in conflict-affected societies. *Globalisation, Societies and Education*, 14(3), 403–421.
<https://doi.org/10.1080/14767724.2015.1127749>
- Mathew, S. (2012). Implementation of Cloud Computing in Education – A Revolution. *International Journal of Computer Theory and Engineering*, 4(3), 473–475.
<https://doi.org/10.7763/IJCTE.2012.V4.511>
- Polianovskiy, H., Zatonatska, T., Dluhopolskyi, O., & Liutyi, I. (2021). Digital and Technological Support of Distance Learning at Universities under COVID-19 (Case of Ukraine). *Revista Romaneasca Pentru Educatie Multidimensionala*, 13(4), 595–613.
<https://doi.org/10.18662/rrem/13.4/500>
- Protsyk, H. (2025). Higher Education Amid the War: A Resilience Test for Ukraine's Integration into the European Higher Education Area. In M. Rabinovych & A. Pintsch (Eds.), *Ukraine's Thorny Path to the EU* (pp. 279–310). Palgrave Macmillan.
https://doi.org/10.1007/978-3-031-69154-6_12
- Reznikova, O. O. (2022). *National resilience in a changing security environment*. Kyiv: NISD. https://niss.gov.ua/sites/default/files/2022-03/reznikova-ukraineresilience2022_02.pdf
- Ritesh, S. (2019). *Transforming systems in times of adversity: Education and resilience*. USAID. <https://inee.org/resources/transforming-systems-times-adversity-education-and-resilience>
- Tarasenko, S., Vorontsova, A., Régent, V., Soss, J., & Mylenkova, R. (2025). Science mapping analysis of challenges surrounding cloud universities and their impact on the resilience of higher education. *Knowledge and Performance Management*, 9(2), 1–17.
[https://doi.org/10.21511/kpm.09\(2\).2025.01](https://doi.org/10.21511/kpm.09(2).2025.01)

- Teece, D. J., Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, 509–533.
[https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Sultan, N. (2010). Cloud computing for education: A new dawn? *International Journal of Information Management*, 30(2), 109–116. <https://doi.org/10.1016/j.ijinfomgt.2009.09.004>
- Thorne, S., Jensen, L., Kearney, M. H., Noblit, G., & Sandelowski, M. (2004). Qualitative meta-synthesis: Reflections on methodological orientation and ideological agenda. *Qualitative Health Research*, 14(10), 1342–1365. <https://doi.org/10.1177/1049732304269888>
- Winter, S. G. (1987). Knowledge and competence as strategic assets. In D. Teece (Ed.), *The Competitive Challenge*. Ballinger Publishing.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171–180. <https://doi.org/10.1002/smj.4250050207>
- World Bank (2013). *Education resilience research training in South Asia: a transformative and capacity building agenda*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/936021468306294748/education-resilience-research-training-in-south-asia-a-transformative-and-capacity-building-agenda>
- Youssef, A. E. (2012). Cloud computing services and applications. *Journal of Emerging Trends in Computing and Information Sciences*, 3(6), 838–847.

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