

Integrating Multiple Organisations and Disciplines to Deliver Projects Within a VUCA Environment

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Abstract

Professional services firms partaking in projects across industries and organisations such as Arup are facing challenges with successful collaboration on a systemic level in the VUCA context. A literature review of academic, grey and white papers is conducted to identify aspects that apply to this challenge, which are not only effective but also generalisable without context or industry-related specificity. Two key elements were identified: adaptive agility and psychological safety, which both intersect with leadership. Recommendations are made in an infographic checklist format including considerations of implementation and possible limitations.

Introduction

Arup is an international professional services firm, providing engineering, architecture, planning, design and advisory services, with over 90 offices across 33 countries (Arup, 2022).

Working over such a diverse spectrum of services and situations, Arup relies on teamwork across different sectors, with in-house teams and external organisations. Under current conditions, they face increased complexity and interoperability within their capital projects.

When several disciplines are being brought together one of their challenges is the successful integration at a systemic level across organisations to successfully deliver projects within the VUCA context



(adapted from Business Harvard Review – Bennett & Lemoine, 2014)

VUCA stand for volatility, uncertainty, complexity and ambiguity. Every industry is affected by this turbulence, but businesses such as Arup must account for these contexts considering their extended reach and international work. Such issues require a new corporate foresight, attending to key issues such as agility (responding to volatility), knowledge (in relation to uncertainty), restructuring (to complexity) and experimentation (to ambiguity) helping corporate entities to strategize for a future rich in “vucability” (Kaivo-oja & Lauraeus, 2018).

With such a complex dynamic of teams, efficient collaboration is of the utmost importance. This is why it is important for them to enable a collaborative environment that works well, especially under the VUCA context.

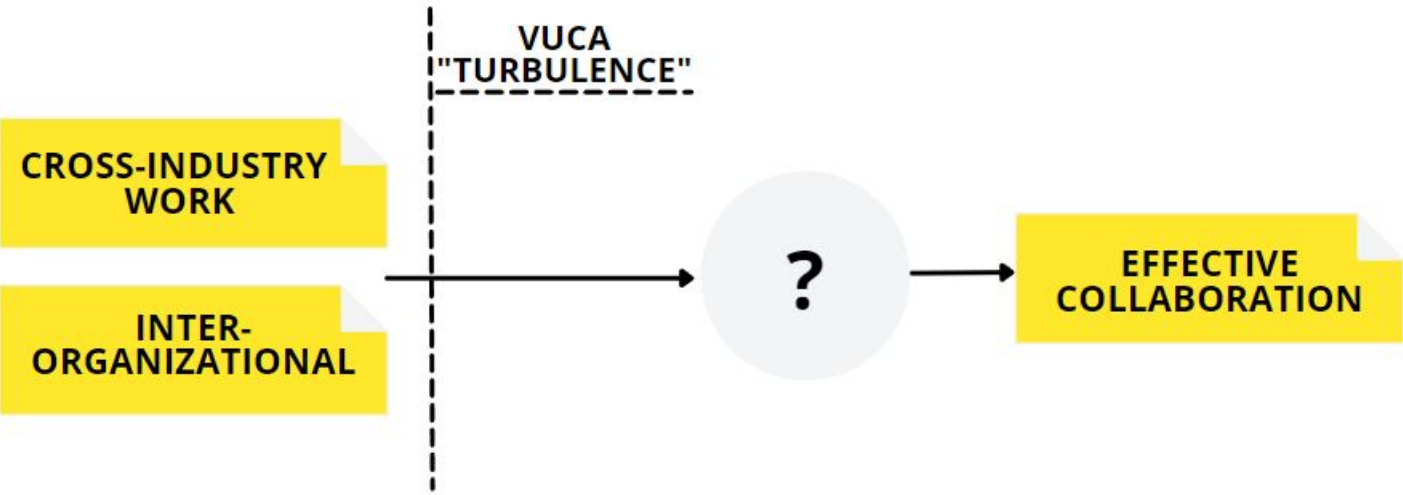
The term collaboration refers to different people or groups working together for a common goal (Pachura, 2021).

Looking at multi agency teamwork during major emergencies and disasters Power (2018) has found that teamwork training designed to generate a shared sense of culture and values, as well as a focus on team processes and an emphasis on coordination across teams is essential for teamwork in complex environments, as it allows multiple individuals and groups to work together effectively.

In Teamwork and Collaboration in Long-Duration Space Missions Landon, et al (2018) identified that the selection for aptitude, capabilities and skill for teamwork in team members was key. Here we see a focus on clear overarching goals being set, focus on building trust, setting communication norms and consistent feedback and debriefing to minimise conflict.

Finally, the level of team integration is also vital. As ARUP is essentially facilitating cross-organisational project work, the inter organisational aspects of collaboration are to be investigated. This specific environment brings its range of challenges at every stage of planning and implementation (Gazley, 2016; Saukko et al; , 2020). However, it is important to note that most research focuses on very specific issues in single countries and industries, therefore there is a gap in generalisability even if the findings are very similar in a larger scale.

This research poster aims to conduct a review of current literature and present a generalisable recommendation applicable across projects and industries to reach successful team collaboration cross-organisationally in today’s VUCA environment. For a visual representation of the question see the model below:



Methods

To generate an impactful outcome the development/process was divided into two stages:

The **first stage** was that of a literature review, selecting relevant papers and materials that define and build around the concepts mentioned in the introduction. Within the selection process of the literature, criteria such as industry relevance, publication recency, the credibility of the source, ecological validity were applied. Cross-compatibility of the found models was looked at while bringing together only models that can work together, to be translated into functional measures in response to industry challenges.

The **second stage** was that of strategy development, comprising the development of solutions that enable successful integration at a systemic level across organisations to successfully deliver projects within VUCA contexts. In the creation of the working principles, the methodological aim was to briefly present steps that can be implemented by the client, keeping in mind constraints such as resources and VUCA contexts.

Results

We found that there are two key elements to our business problem based on grey literature, recent papers, and a report by a leading management consultancy:

1) Adaptive Performance

An emerging idea for managing uncertainty and change: implementing agility-enhancing practices (Baran & Woznyj, 2020.) These include: communication and transparency, knowledge sharing and teamwork, training and development, customer focus, leadership strategy, managing talent.

Requirements (Towler, 2020):

- Implementation of employee adaptability metrics
- Conducting error-exposure and adaptability training
- Framing errors as an opportunity to learn
- Promoting a team learning environment
- Engaging in transformational leadership behaviours
- Establishing a vision that is linked to growth and adaptability

Example: new hires helping out with more senior duties in a construction consulting setting to fill in gaps, when more experienced staff are off with sickness.

2) Psychological Safety

Research has continuously showed that teams collaborate well if there is psychological safety, meaning that employees work in a positive atmosphere where they are willing to take interpersonal risks (Newman, Donohue & Eva, 2017).

Requirements (Delizonna, 2017; McKinsey, 2021):

- Implementation of psychological safety metrics
- Utilising collaborative conflict handling practices
- Building a non-blame culture
- Giving feedback on delivery
- Engaging in consultative and supportive leadership behaviours

Example: the members of a newly set up team are openly sharing ideas during a brainstorming session, not being afraid of being judged for their contribution.

These variables both intersect with leadership.

A recent Master thesis (Høgden & With, 2021) shows that transformative leadership separately significantly related to adaptive performance and a psychologically safe working environment.

Furthermore, a McKinsey report (2021) signals that the type of leadership is imperative to produce a psychologically safe environment.

Based on these findings which consider all the contextual information of the business problem of Arup, recommendations can be made to use and implement for successful inter organisational and interprofessional collaboration.

Recommendations

Our recommendation has been collated and formed into an infographic format (see below) as a summary of current thinking and approaches as we see it. Its elements can be regarded as checklist items, meaning that the more of the actions listed are taken the more likely it is that effective cross-organisational and cross-industry collaboration will happen.



Strategy and implementation evaluation are highly important, with the recommendation of measuring both quantitative and qualitative data, to understand changes and their nature. Such metrics include auditing generic team effectiveness (a holistic approach looking into leadership, knowledge, deliverables, role clarity, flexibility and more) (Woodcock & Francis, 2017) as well as interviews to understand subjective or individual experiences surrounding the effectiveness of the system. A successful intervention will be reflected in these measures and in the response that Arup receives from its partners when evaluating their projects. Possible limitations could include a lack of resources, insufficient expertise, or an organisational culture that is not committed to be data-driven.

Key References

Baran, B. E. & Woznyj, H. M. (2021). Managin VUCA: The human dynamics of agility. *Organisational Dynamics*, 50(2). Doi: <https://doi.org/10.1016/j.orgdyn.2020.100787>

McKinsey & Company (2021). *Psychological safety and the critical role of leadership development*. Retrieved from: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/psychological-safety-and-the-critical-role-of-leadership-development>

Newman, A, Donohue, R. & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), 521-535. Doi:10.1016/j.hrmr.2017.01.001

Landon, L. B., Slack, K. J., & Barrett, J. D. (2018). Teamwork and collaboration in long-duration space missions: Going to extremes. *American Psychologist*, 73(4), 563–575. <https://doi.org/10.1037/amp0000260>

Power, N. (2018). Extreme teams: Toward a greater understanding of multiagency teamwork during major emergencies and disasters. *American Psychologist*, 73(4), 478–490. <https://doi.org/10.1037/amp0000248>

