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Knowledge Management as driver for prevention and performance trade-offs

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How to achieve safety and production goals together?

(OSHA, 2020; Pagell et al., 2014, 2015, 2020; Hu et al., 2020; Jeschke, 2022; Pinto, et al., 2021, 2022)

Practitioners' difficulties: How to place safety as a strategical concern? Safety is still a "sidecar" to workers that proposes extra tasks.

Literature gap: Safety and operations are two distinct worlds: how to achieve safety and production goals?

Research objective: Propose a management approach that bridges safety and production goals, placing safety as a strategic concern.

Towards performance: creating the prevention effect

(Zollo & Winter, 1999; Felin, 2005, 2012, 2020)

Creating a knowledge management structure over the bricolages enables both prevention effect and performance gains.

The strategic management literature that suggests this is **Dynamic Capabilities (DC):**

Dynamic Capabilities: Organization is a box with knowledge; when we apply it, we produce merchandise; if we discover it, we gain market or adapt to pressures.

Micro-foundations of DC: The discovery of new knowledge comes from applying knowledge; the persons who are part of the organization are key.

A paradigmatic approach on safety management literature

(Hollnagel 2015, 2017; Baker & Nelson, 2005)

Resilience Based-Safety: The work-as-done (what we do) only exists because we adapted work-as-imagined (planning). Safety studies should investigate how workers adapt themselves, create knowledge.

Bricolage: Adaptations done convey workers' safety and productions notions. Project conception should incorporate adaptations that improve both together.

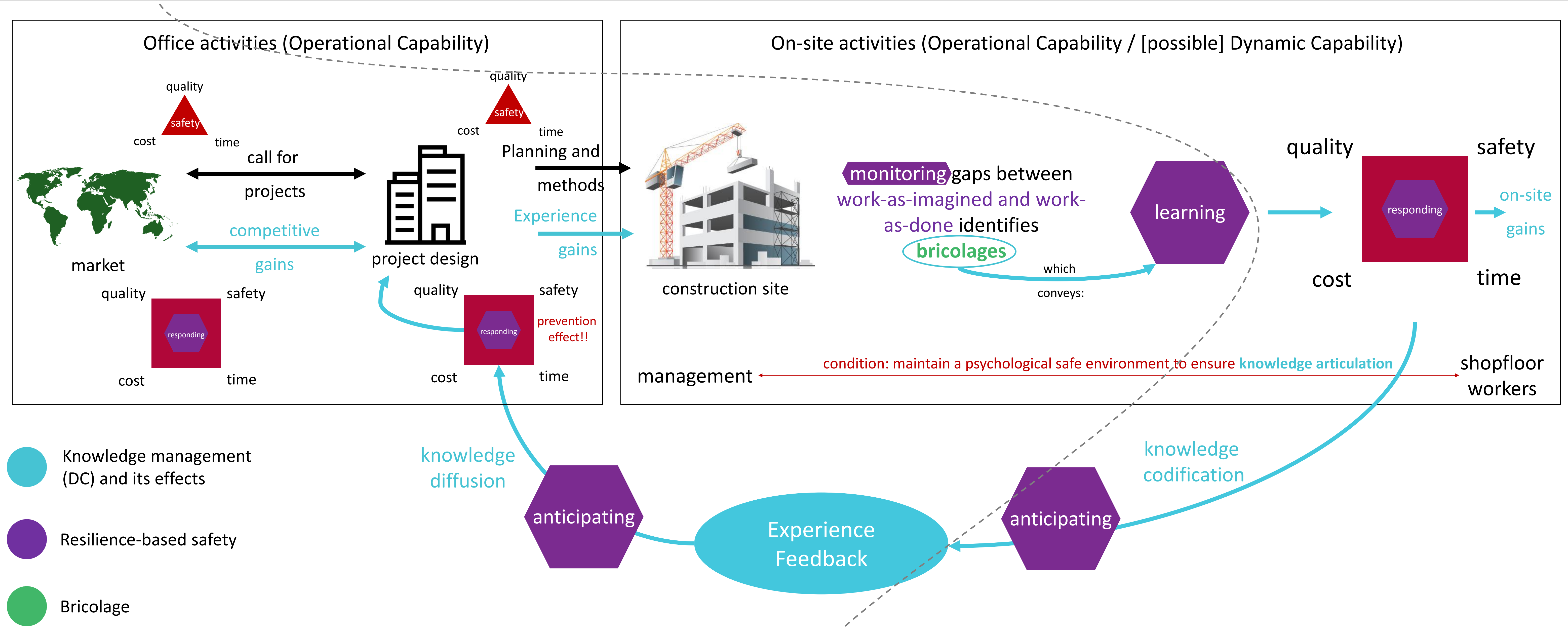
Methods employed

(Chevalier & Buckles, 2013)

Field query: involving around 30 professionals from shopfloor to strategic levels

Research diary: Summing up to 20-000 words (around 52 pages) done closer to the visit-as possible, and the researcher's voice notes

Key tool: Time-line from Participatory Action Research approach



Final considerations and future research


The achievement of production and safety goals together is done bricolage (a big value leak in the organization).

We identified different types of gains: one related to the construction site and the other to the construction company.

Micro-foundations of Dynamic Capabilities and bricolages can provide a proper "theoretical nest" to place Resilience-based safety literature in strategic management.

Knowledge management is key to obtain performance from safety activities because it enables prevention effects.

Further investigation: how to conceive the knowledge management in this scheme? How should it work? Which indicators should we use to manage it?



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Want to know more?

