

# **The Relationship Between Transactive Memory Systems and Software Development Agility**

*TREO Talk Paper*

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## **Abstract**

Responding to requirement changes while continuing to deliver a change presents an agility challenge to many teams in software development. Growing evidence suggests that when teams respond to extensive requirement changes (response extensiveness), they tend to sacrifice efficiency in delivering a change (response efficiency) (Lee and Xia 2010; McKinley 2015). Trading a more extensive response to requirement changes for a less efficient response to deliver a change is defined as software development agility, a common challenge in agile software development (Lee and Xia 2010). The proposed study takes an effective teams perspective of being agile, rather than a doing or following agile methods perspective so common in IT research (McAvoy et al. 2012). A prominent component of effective software development teams is a well-developed transactive memory system (TMS) (Maruping et al. 2009). A TMS is characterized as a team's expertise network, driven by members' awareness of "who knows what". As little is known about the relationship between TMS and software development agility, this study seeks to better understand their suspected intricate relationship. Prior research indicates TMS, a second-order construct, likely has a complicated effect on software development agility (McKinley 2015). A key limitation of McKinley's study concerned relating a single, second-order measure of TMS to response extensiveness and response efficiency. Based on emerging field research and guidance, this study intends to relate three first-order dimensions of TMS, specialization, coordination, and credibility, directly to response extensiveness and response efficiency. Such study is expected to expose a more intricate relationship between TMS and software development agility. Increasing our understanding of what enables and inhibits agility from the perspective of TMS will be a key contribution to research. Providing practical guidance on how to enhance a team's TMS such that it maximizes response extensiveness and response efficiency while minimizing their trade-offs will be a key contribution to practice.

## **References**

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