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Achieving Digital Resilience in Crisis: A Resource Orchestration Analysis

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In this study, we aim to investigate the research question: "How could organizations effectively deploy IS resources to adapt to changes caused by massive external shocks, thus achieving *digital resilience* (Waifong Boh et al., 2021)? Massive external shocks, such as the recent COVID-19 crisis, have led to dramatic shifts in customer behavior globally – from traditional shopping (e.g., in brick-and-mortar shops) to online shopping (e.g., in digital platforms). This radical shift vividly surfaced the need for organizations across industry sectors to make rapid-scale digital transformations to meet such urgent customer behavioral shifts during the crisis. While information systems (IS) has high potential in helping firms in responding to and recovering from major external shocks, the *processes* by which organizations could effectively utilize such IS resources to achieve resilience in the face of significant shocks remain a black box.

A resource orchestration perspective (ROP) is adopted (Sirmon et al., 2011) as a theoretical sense-making lens to investigate the required processes to effectively utilize resources for achieving digital resilience in crisis. The ROP suggests that while owning valuable resources (e.g., IT resources) is important in pursuing a particular strategy, managing such resources effectively is more critical than simply possessing them for the success of the such strategy. This is because organizations often display different performance levels even if they have identical resources. Thus, the ROP emphasizes the need to pay attention to three resource-focused management processes: structuring, bundling, and leveraging. The ROP has attracted increasing attention in recent digital transformation studies – where organizations can successfully orchestrate their IT resources to transform their business models from traditional brick-and-mortar to multi-channel organizations (Cui & Pan, 2015). However, little is known about how firms can orchestrate IT and other resources to achieve digital resilience in the context of massive external shocks. Compared to the digital transformation approach during the tranquil period, firms are often required to develop a more rapid and radical approach to effectively respond to such disruptive events.

By leveraging the ROP perspective and a case study of a leading B&M organization in Asia that achieved remarkable success in its digital transformation efforts during the COVID crisis, we could reveal how firms can structure, bundle and leverage their IT and other resources to alleviate the Individual Cognitive Complexity, Large-Scale Coordination Complexity, and Cross-Functional Relationship Endurance Complexity. These resource-focused management processes could move firms from not only surviving -- but also thriving despite considerable crisis threats, thus achieving digital resilience. Theoretically, our study contributes to the incremental literature development of digital resilience and ROP. Practically, our findings provide managerial implications for practitioners with practical guidelines for successful digital transformation during a crisis.

References

1. Boh, Waifong; Constantinides, Panos; Padmanabhan, Balaji; Viswanathan, Siva; Henfridsson, Ola; Rai, Arun; Sen, Soumya, "Digital Resilience During Covid: Fleeting or Enduring ." ICIS 2021
2. Cui, M.; & Pan, S. L. (2015). "Developing focal capabilities for e-commerce adoption: A resource orchestration perspective. *Information and Management*, 52(2), 200–209.
3. Sirmon, D. G.; Hitt, M. A.; Ireland, R. D.; & Gilbert, B. A. (2011). "Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects." *Journal of Management*