

Trust and Technology Adoption:
How Relationships Influence IT Adoption in the Public Sector
Assignment, Option E

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Introduction

Technological adoption and resistance within public organizations is a critical area of study, especially as they increasingly integrate advanced technologies to enhance public service delivery, efficiency, and transparency. The adoption of new technologies involves not only technical and logistical considerations, but also deeply rooted psychological aspects related to interpersonal relationships and organizational culture. Understanding the factors that influence technological adoption can help leaders overcome barriers and leverage technology effectively.

The psychology of close relationships provides valuable insights into these dynamics. For example, concepts such as relational-interdependent self-construal (RISC) and communal strength, crucial in personal relationships, can also apply to professional settings within public organizations (Mattingly et. al., 2011). Strong relationships characterized by mutual responsiveness, trust, and commitment can significantly impact the success of technological adoption. This paper reviews the literature on this topic, focusing on stages of technology adoption, factors influencing IT adoption, the role of intra-organizational legitimacy, cultural and societal influences, and supplier perspectives, all through the lens of relationship psychology.

Theoretical Framework: Social Exchange Theory

Social Exchange Theory (SET) posits that human relationships are formed based on the exchange of rewards and costs. This theory can be applied to understand how relationships within public organizations influence technological adoption and resistance. By examining the rewards and costs associated with technology adoption, we can better understand the dynamics at play in these organizational settings. According to Cropanzano and Mitchell (p. 874, 2005), SET is foundational for understanding workplace behavior, encompassing exchanges not only within organizations but also extending to interactions with family, friends, and colleagues.

Stages of Technology Adoption

Saghafian et al. (2021) provide a comprehensive thematic map of the technology adoption process, identifying three critical stages: *pre-change*, *change*, and *post-change*, each encompassing various factors that influence the adoption process. The *pre-change* stage involves assessing organizational readiness, including existing infrastructure, technological capabilities, and the organization's preparedness for change. Key factors include technological infrastructure and human resources. During the *change* stage, there is a focus on implementation processes and initial reactions within the organization; this involves managing the transition, training employees, and addressing resistance to change. The *post-change* stage looks at the long-term integration of the new technology and feedback mechanisms to ensure continuous improvement and adaptation. Relationship dynamics during these stages are crucial. Strong interpersonal relationships can facilitate smoother transitions by fostering trust and collaboration, while poor relationships can hinder the process by exacerbating resistance (Mattingly et. al., 2011, p. 1245).

Factors Influencing IT Adoption

Salahshour et al. (2023) offer a detailed review of the factors influencing IT adoption, which include technological infrastructure (critical for supporting new technologies), managerial commitment (to drive adoption and address resistance within the organization), and human resources (to effectively train and develop employee skills to ensure they can effectively use new technologies and adapt to changes).

The quality of relationships between managers and employees significantly affects IT adoption. Strong relationships can enhance managerial commitment and facilitate employee training and adaptation (Weigel & Ballard-Reisch, 2014, p. 320).

Intra-Organizational Legitimacy

Ren (2023) explores the concept of intra-organizational legitimacy, in its various forms, and its impact on technology adoption, e.g., performance legitimacy, task legitimacy, and value legitimacy as key forms that influence how new technologies are perceived and supported within an organization. On adoption, organizational legitimacy can either facilitate or hinder technology adoption depending on how well it is managed and communicated within the organization.

Because SET is about the exchange of rewards and costs, it helps explain how the perceived rewards (e.g., improved performance, task efficiency) and costs (e.g., effort, change resistance) associated with new technologies impact their legitimacy and acceptance within the organization (Cropanzano & Mitchell, 2005, p. 881).

Cultural and Societal Influences and Supplier Perspectives

Marchiori et al. (2024) examine the role of national cultural dimensions on e-government adoption, defined as using information and communication technologies (ICTs), highlighting how cultural factors influence the success of technological initiatives. Dimensions such as individualism, power distance, and infrastructure significantly impact e-government levels. For example, individualistic cultures may be more receptive to technologies that promote autonomy and personal control and a country's technological infrastructure directly influences the success of e-government initiatives. Cultural norms and values shape the relationships within public organizations, affecting how technology is adopted and integrated. In cultures with high individualism, the emphasis on personal achievement and autonomy can facilitate the adoption of new technologies. As Cropanzano and Mitchell (2005) note, "...social exchange involves a series of interactions that generate obligations..." which are crucial for establishing trust and commitment in diverse and cultural contexts (p. 875).

Karttunen (2023) investigates how suppliers perceive public sector customers and finds that suppliers play a critical role in the procurement process, particularly in areas of innovation and strategic intentions; their perspectives can influence the success of technological initiatives. Building trust and fostering long-term relationships with suppliers can lead to more successful procurement outcomes and smoother technology adoption processes, aligning with SET reciprocal relationships and mutual benefits (Cropanzano & Mitchell, 2005, p. 876).

Additional Psychology Relationship Insights

Mattingly, Oswald, and Clark (2011) highlight the importance of relational-interdependent self-construal (RISC) and communal strength in maintaining positive relationships. These concepts can be applied to understand how individual differences in self-construal and communal orientation impact pro-relationship behaviors in organizational settings. Individuals with higher RISC view their relationships through a communal lens, which promotes mutual responsiveness and pro-relationship behaviors such as willingness to sacrifice and accommodation. Encouraging a communal orientation within government organizations can enhance relationships and facilitate technological adoption by fostering a supportive and collaborative environment. Additionally, Weigel and Ballard-Reisch's (2014) dyadic model of commitment can provide insights into how expressions of commitment within organizational relationships impact the overall success of technology adoption. Regular expressions of commitment, such as support and collaboration, can strengthen relationships and enhance trust within organizations. Employees' and managers' perceptions of each other's commitment to technological initiatives can influence their willingness to adopt and support new technologies.

The integration of these psychological perspectives into the broader discussion of technological adoption and resistance underscores the importance of relational dynamics in

organizational settings. Strong interpersonal relationships characterized by trust, mutual responsiveness, and regular expressions of commitment can significantly enhance the success of technological initiatives. The insights from this literature review provide a valuable foundation for developing strategies to address potential barriers and ensure the successful implementation of new technologies in public organizations.

Conclusion

Technological adoption and resistance within public organizations is a multifaceted issue that requires a comprehensive and strategic approach. By understanding the various factors that influence adoption and addressing potential barriers, policymakers and practitioners can enhance the efficiency, transparency, and effectiveness of public services. The integration of psychological perspectives, particularly those focusing on relationship dynamics, provides a richer understanding of the adoption process. Strong interpersonal relationships characterized by trust, mutual responsiveness, and regular expressions of commitment can significantly enhance the success of technological initiatives. Encouraging a communal orientation and fostering a supportive and collaborative environment within public organizations can mitigate resistance and promote a smoother transition to new technologies. The insights from this literature review provide a valuable foundation for developing strategies to overcome resistance and ensure the successful implementation of new technologies in public organizations. Ultimately, by prioritizing relational dynamics and leveraging the principles of Social Exchange Theory, public agencies can better navigate the complexities of technological change and achieve more effective and sustainable outcomes.

References

- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, 31(6), 874–900.
<https://doi.org/10.1177/0149206305279602>
- Karttunen, E., Matela, M., Hallikas, J., & Immonen, M. (2022). Public procurement as an attractive customer: a supplier perspective. *International Journal of Operations & Production Management*, 42(13), 79–102. <https://doi.org/10.1108/IJOPM-05-2021-0346>
- Marchiori, D. M., Mainardes, E. W., & de Ascensão Gouveia Rodrigues, R. J. (2024). Bridging Culture and Technology: A Study of E-Government Adoption. *Public Organization Review*. <https://doi.org/10.1007/s11115-024-00761-5>
- Mattingly, B. A., Oswald, D. L., & Clark, E. M. (2011). An examination of relational-interdependent self-construal, communal strength, and pro-relationship behaviors in friendships. *Personality and Individual Differences*, 50(8), 1243–1248.
<https://doi.org/10.1016/j.paid.2011.02.018>
- Ren, M. (2019). Why technology adoption succeeds or fails: an exploration from the perspective of intra-organizational legitimacy. *The Journal of Chinese Sociology*, 6(1), 1–26.
<https://doi.org/10.1186/s40711-019-0109-x>
- Saghafian, M., Laumann, K., & Skogstad, M. R. (2021). Stagewise Overview of Issues Influencing Organizational Technology Adoption and Use. *Frontiers in Psychology*, 12, 630145–630145. <https://doi.org/10.3389/fpsyg.2021.630145>
- Salahshour Rad, M., Nilashi, M., & Mohamed Dahlan, H. (2018). Information technology adoption: a review of the literature and classification. *Universal Access in the Information Society*, 17(2), 361–390. <https://doi.org/10.1007/s10209-017-0534-z>

Weigel, D. J., & Ballard-Reisch, D. S. (2014). Constructing Commitment in Intimate Relationships: Mapping Interdependence in the Everyday Expressions of Commitment. *Communication Research*, 41(3), 311–332. <https://doi.org/10.1177/0093650212440445>