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- [16] M. Barratt and A. Oliveira, "Exploring the experiences of collaborative planning initiatives," *International Journal of Physical Distribution & Logistics Management*, vol. 31, pp. 266-289, 2001.
- [17] C. Chao, A. Hadavi, and R. Krizek, "Toward a supply chain collaboration in the e-Business era for the construction industry," in *Proceedings of the XVII Symposium on Automation and Robotics in Construction*, 2000, pp. 1183-1188.
- [18] E. Kioses, K. Pramatarı, G. Doukidis, and C. Bardaki, "Measuring the business value of electronic supply chain collaboration: The case of electronic invoicing," *BLED 2007 Proceedings*, vol. 53, 2007.
- [19] F. Wiengarten, P. Humphreys, A. McKittrick, and B. Fynes, "Investigating the impact of e-business applications on supply chain collaboration in the German automotive industry," *International Journal of Operations & Production Management*, vol. 33, pp. 25-48, 2013.
- [20] L. Cassivi, E. Lefebvre, L. A. Lefebvre, and P.-M. Léger, "The impact of e-collaboration tools on firms' performance," *International Journal of Logistics Management, The*, vol. 15, pp. 91-110, 2004.
- [21] Y. V. Aydogdu and S. Aksoy, "A study on quantitative benefits of port community systems," *Maritime Policy & Management*, vol. 42, pp. 1-10, 2015.

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