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Making the Right Pick: Aligning Order Picking Methods, Incentive Systems and Regulatory Focus to Increase Picking Performance

Jelle de Vries*, René B.M. de Koster**, Daan Stam***

*Department of Management of Technology and Innovation, Rotterdam School of Management, Erasmus University, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, (email: jvries@rsm.nl)

**Department of Management of Technology and Innovation, Rotterdam School of Management, Erasmus University, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, (email: rkoster@rsm.nl)

***Department of Management of Technology and Innovation, Rotterdam School of Management, Erasmus University, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, (email: dstam@rsm.nl)

Abstract: A unique controlled field experiment investigates order picking performance (in terms of productivity, quality, and job satisfaction). We examined three manual picker-to-parts order picking methods (parallel, zone, and dynamic zone picking) under two different incentive systems (individual-based versus team-based) for pickers with a different regulatory focus (dominant prevention-focus versus dominant promotion-focus). The study was carried out in a warehouse erected especially for the purposes of this study. Our results show that when using a parallel picking method an individual-based incentive system increases productivity and quality compared to a team-based incentive system, and that when using a zone picking method it is more productive to use a team-based incentive system. This pattern of results was especially pronounced for pickers with a dominant promotion focus. Dominantly prevention focused pickers, however, were more productive with a team-based incentive system, irrespective of the picking method. Additionally, a team-based incentive system delivered a low quality performance in zone picking, but a high quality performance in dynamic zone picking. No substantial differences in job satisfaction could be identified. The analyses demonstrate that by aligning order picking methods, incentive systems and regulatory focus, warehouses can improve productivity and quality, and reduce wage costs by up to 20%

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