

Application of Lean Six Sigma Tools to Minimize Time and Cost in Furniture Packaging

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Abstract : In this work, the packaging process for a move is improved. The customers of this move need their household stuff to be moved from their current house to the new one with minimum damage, in an organized manner, on time and with the minimum cost. Our goal was to improve the process between 10% and 20% time efficiency, 90% reduction in damaged parts and an acceptable improvement in the cost of the total move process. The expected ROI was 833%. Many improvement techniques have been used in terms of the way the boxes are prepared, their preparation cost, packing the goods, labeling them and moving them to a place for moving out. DMAIC technique is used in this work: SIPOC diagram, value stream map of "As Is" process, Root Cause Analysis, Maps of "Future State" and "Ideal State" and an Improvement Plan. A value of ROI=624% is obtained which is lower than the expected value of 833%. The work explains the techniques of improvement and the deficiencies in the old process.

Keywords : packaging, lean tools, six sigma, DMAIC methodology, SIPOC

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