

Title: Factors impacting the sustainability of continuous improvement initiatives in Wood Products Industries

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Abstract: Using a case study, three different companies were studied for a year to test the impact of a series of management factors on the sustainability of the continuous improvement process. Factors were extracted from previous research on incremental innovation and continuous improvement. A questionnaire was developed and applied four times in three-month intervals to the case study companies. Different multivariate statistical techniques such as the Chronbach alpha, confirmation factor analysis, and exploratory factor analysis were used to test for the validity and the model fit. Validated data was reduced using a statistical procedure in order to conduct the longitudinal study. The different time intervals were tested using analysis of variance (ANOVA) with fixed-effect and contrast-effect mode where results were compared by industry and location. Main results showed that time has no effect on factors affecting the sustainability of the continuous improvement, although changes affect how the factors are perceived as success factors in sustaining continuous improvement. The study also revealed that these factors are correlated among them, thus sustainability is the result of a dynamic multifactor process rather than a unique factor.