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An investigation into the quality of fluting-paper at papermills

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ABSTRACT

Fluting-paper produced to meet the same technical specifications at three of the company's mills, is viewed as unsatisfactory and inconsistent by some customers. This study investigated whether the company's fluting-paper met the customers' needs and investigated the reasons for the customer's differing perceptions and claims of inconsistent quality. The hypothesis, investigated is therefore "the company produces fluting-paper consistently according to technical specifications that meet the customer needs". The four objectives of this study investigated customer complaints, related the customer needs to the technical specifications, related the process measure of quality, cull, to the technical specifications and determined the reasons for the customers' claims of inconsistent quality. The customer complaints investigation revealed differences at the mills and that fifty three percent of customer complaints were technical. The technical category was investigated to reveal "out of specification" paper, moisture, cracking, glueability and winding operations as the biggest problems that contribute to complaints. A customer survey conducted determined the customer needs and the importance of each customer need. The most important customer needs determined were consistent moisture, consistent weight and strength. The most important technical characteristics were determined using a team of technical experts and QFD principles, to be grammage, moisture and porosity. QFD also revealed that there were technical characteristics to describe the customer needs and there were specifications on all technical characteristics, except one new customer need. In the investigation of the process, cull, was consecutively compared to the technical specifications, customer needs and customer complaints using QFD. These investigations showed that tensile strength, tear and porosity were technical specifications for which paper was not culled and some mills cull paper for non-technical reasons which are not standardized across mills. These disparities are envisaged to realize into the customers claims of inconsistent quality. The results from these four objectives therefore point out that the company does not always produce fluting-paper consistently according to technical specifications that meet the customer needs, and this hypothesis is therefore rejected.