How Quality Impacts Your Furniture

In the summer of 2018, I got the opportunity to work as an operations intern in the furniture retailer, CITY Furniture. This helped to bolster my experience in the applications of engineering knowledge while gaining insight towards business management and process improvement through the in-house job practices I performed during my time there. The key idea I took from this experience was that quality is the driving force behind all working methods that are executed throughout the successful company. For the individual departments within CITY to perform and cooperate with such discipline, the company devised an overall operating system known as the "House of Quality," which features key elements defined by the Lean production system that are focused on continuous improvement toward the best deliverance of quality in any situation. It’s this meticulous approach towards running a company that has brought CITY major success over the years, and to this day it is still the vital backbone that drives all job practices and in-house objectives in the direction of maximum quality.

The foundation of such a house was formed by four steps that make up the functional roots of the company. The first of these steps established CITY’s main principles by asking the hypothetical question of "who they are" as a company through their mission in delivering the best customer service through their selling of high-quality furniture goods and how they will achieve their objectives towards that purpose. These objectives needed to be thoroughly addressed according to the foundation’s second rooting step in the standardization of all CITY’s work as demonstrated through its own “standard operating procedures,” or SOPs. To help make these standards easier to identify, the third step was illustrated through the abundant usage of visual controls, such as color-coding different sections of the distribution complex to easily identify where different components should go and what key actions must be taken within the defined spaces. The final step had to do with “leveled production” that is defined by the Lean process as the continuous, “one-piece” flow of production with no lead time or needed inventory that would lead to wasted effort and increased costs.

The two main columns that then support the house were formed in line with these steps. The first was based on the “leveled production” foundational step in the correct provision of the needed product goods and meeting demand without delays or overproduction in a “just in time” system. CITY approached this via methods such as the Kanban card system to maintain the
needed tooling supply amount for their jobs, their “quick changeover” system for the same in-house components utilized across multiple processes to avoid the use of expensive manufacturing equipment, and “takt time” to analyze the average production time from unit to unit to meet customer demand. The other column was formed to mitigate errors in every task by applying “built in quality” practices to all jobs, such as checking the quality of the good and the job in practice right at their current sources, or the application of a line-stopping system known as an “andon” if there is a noticeable process or quality problem that must be evaluated and corrected at once. These practices were defined in line with the qualitative practices formed in the SOP standards step to make sure no defects would come into effect.

The central innards of the house were devised according to three principle layers that meld the other house pieces together towards the deliverance of highest quality. The first layer identified and addressed the elimination of waste according to an eight-category acronym known as “D.O.W.N.T.I.M.E.” which stands for Defects, Overproduction, Waiting, Non-utilized talent, Transportations, Inventory, Motion, and Extra processing. By these categories were any extra unnecessary process steps, costs, and time evaluated through methods such as analyzing the root cause of the waste through Gemba visualization. The second inner layer worked cohesively with the first in the addressing of these possible wastes by the focus on the people behind the work and their cooperative interactions, utilizing both administrative methods in applying a coaching approach to their employees and focusing on servant-style leadership, and personally targeted methods including daily management and cross-training across multiple disciplines. These layers, in line with the rest of the house, were subjected to the third inner layer in the practice of continuous improvement methods such as “Plan, Do, Check, Act (PDCA),” which revolved around the implementation and execution of constantly improving company practices, and people and process balancing to match the right personalities of the overall employment to handle the correct necessary tasks.

When all these pieces were set up properly, the final piece of the house in the roof was put into place. This roof was defined as the ultimate state of “perfection” that CITY strived to achieve according to the principles established in the purpose of the whole company, and though this state was acknowledged to not be immediately reachable by any current means, CITY set it as a theoretically feasible target across five key points: safety through zero injuries, full customer satisfaction, efficient performance, fully synchronized teamwork, and most importantly,
premium quality in the deliverance of all their goods and services. Through these aspirational standards defined in the roof along with the structural practices identified in the rooting foundational steps, the supportive columns that provide the precise and constant flow of products and services, and the gelling innards that spur the movement of continuous improvement did the "house of quality" fully come into focus. The result of this architectural approach towards running CITY Furniture is a dedication to delivering the highest level of quality in the goods it sells and the cooperative services it offers to its customers, making this store one of the most popular and expansive businesses today. Thanks to the overall experience I had during my time at CITY, I now have a firmer grasp in the field of quality and process improvement courtesy of this company’s approach to them.