Assignment 2 Scenario Documenting and improving a home building process

# Task

After the completion of the as-is process modelling (in Assignment 1), your Consulting Team (three members) has been asked to conduct a targeted process analysis and improvement project for the end-to-end home building process of Custom-Built Kit Homes (CKH). One of the key business goals set by the CKH management team is to exceed customer expectations during every phase of a home build project. This means that the core end-to-end process for home building should be efficient, timely, customer focused and have minimal duplication of effort, while at the same time mitigating its risk exposure. It is expected that your project will contribute towards this goal. Your team has been asked to produce a short report (at most 30 pages) which documents the completion of an analysis of the current process and improvement of the current process

# Process description

The as-is process description was provided with the Assignment 1 materials. Further

information about the process to assist your analysis has been provided by CKH management:

* CKH currently complete around 300 homes per year. Peak periods occur at the start of the calendar year and again mid-year.
* The average salary for CKH staff is:
  + Sales, Finance, Delivery and Procurement staff: $45 per hour
  + Quality Assurance, building staff: $55 per hour.
  + Estimator and Line Supervisor: $65 per hour.
  + Production Manager and Installation Supervisor: $80 per hour.
* When requested, a Sales Assistant will spend on average two hours assisting a customer to produce an RFQ. A fee of $40 is charged for this service.
* An Estimator will spend, on average, 12 hours preparing the initial quote. On average, it takes an additional 6 hours to amend a plan returned from the structural engineering firm.

About 30% of plans are sent to the structural engineering firm for assessment. The turnaround time sending a plan to the structural engineering firm and receiving their assessment is, on average, 3 weeks. The average fee is $4600.

* The time spent by a Sales Assistant on each case is on average 5 hours.
* About 40% of builds require supplies to be ordered and supplied. A Procurement Officer will spend on average 3 hours preparing a supplier quote. Two weeks pass between the quotes being sent out and a supplier being selected. It will take on average a further two weeks to receive the materials.
* Each home takes on average 6 weeks to build in the factory once they begin. One line supervisor and 6 building staff are assigned to each build.
* A quality assurance officer will spend, on average, 5 hours inspecting each build.
* About 50% of builds must undergo a minor fix after a quality assurance check. On average, each fix takes about 2 days.
* About 8% of builds must be dismantled after a quality assurance check. On average, each occurrence means a loss of around 14 days of work for all involved workers.
* About 60% of completed homes require full installation. An Installation Supervisor will spend, on average, 4 days on each job assigned to them. Preparation of site will take building staff, on average, 1 week. Local approvals take, on average, 2 days. Delivery takes around 2 weeks. Average installation time is 3 days and involves 3 building staff. About 10% of installations will not meet local authority approvals.
* The average time for internal mail to move from sender to recipient is one day.
* A phone and/or email request for information is returned in 5 hours, on average.

While the management team has tried to cover everything, it is very likely that the information provided will still be inadequate, in which case your team will need to make appropriate assumptions by referring to existing standards, common practice, etc. so that certain analysis and improvement recommendation activities can be performed. It is expected that any assumptions you make will be systematically recorded in your report.

