The RPNs helps the decision making team to identify the parts or processes that need the priority actions for improvement or appropriate reaction **Error! Reference source not found.**. In this research RPN threshold value is equal to 125 to classify failures which is determined by organizational strategies.

3.3. Processes of the Proposed Model

In this section procedures of new risk assessment model will be explained through ELENA's risk management processes (Fig. 1).

1) Determine the project risk policy.
2) Define risk criteria.
3) Identify risk.
4) Analyze risk using FMEA method (described as follows):
   - Collect the system function information.
   - Identify potential failures of product/process; this includes problems, concerns, and opportunity of improvement.
   - Identify consequence of failures to other components/next processes, operation, customers and government regulations.
   - Identify the potential root cause of potential failures.
   - Detectability rating: likelihood of the process control to detect a specific root cause of a failure.
   - Occurrence rating: estimation of the frequency for a potential cause of failures.
   - Severity rating: rank the seriousness of the effect of the potential failures.
   - RPN calculation: product of the three inputs rating; severity, occurrence, and detectability.
   - Specifying the high risk. RPN represents the overall risk of each failure.
     If RPN≤125, then measures should be monitored and trends should be assessed. 1) If the trend is positive, then back to (3). 2) If the trend is negative, risk reduction in the term of corrective and preventive action should be done (It required to fill the corrective action form). Then if the corrective action is effective, go to (6). Otherwise, risk reduction in the term of corrective and preventive action should be done.
   - If RPN≥125, risk reduction in the term of corrective and preventive action should be done. Then if the corrective action is effective, go to (6). Otherwise, risk reduction in the term of corrective and preventive action should be done (It required to fill the corrective action form).
5) Plan risk considering planning criteria.
6) Control risk and review. This is the final step and the measures reports are available.

4. Case Study

The Case study for Gorgan-Bojnord-Mashahd railway is investigated. This project connects the northeastern parts of the country (including Golestan and North Khorasan provinces) through the Mazandaran province to the national railway network. In this section, risk is measured based on different stakeholders' opinion including project manager and PMO manager. Members are assigned scores to detectability, occurrence and severity parameters (from 1 to 10 provided in TABLE IV-TABLE V-TABLE VI) according to the real situations. TABLE II provides a list of identified risk in Gorgan-Bojnord-Mashahd railway, then risks are assessed based on proposed FMEA model explained in section III.