Case Study: Kheri Construction, LLC

Group Work

In this case study, Kheri Construction, LLC uses the data-driven decision-making process to resolve the issue of high staff turnover.

Background

Kheri Construction (KC), LLC is a Dallas, Texas-based premier commercial construction company. The company has a reputation for successfully completing on-time and under-budget mega-million-dollar projects in the state of Texas. The large portfolio of projects completed by the company includes multi-story skyscrapers, multi-lane highways, railroad tracks, and shopping malls.

In the spring of 2011, KC was awarded a contract by the Texas state government to implement a large and complex highway reconstruction project in Houston. The company hired a limited-term (LT) project manager, Emma Veronica, and the project was initiated.

Problem

The project performance was measured primarily via the popular Earned Value Management (EVM). One year into the project, the periodic EVM analysis results over the year revealed that the project's schedule and budget have not been on track. The main reason, according to Emma, was the high turnover of the project staff. High turnover of the project staff (average 52.7% annual) had become a big issue on the project. The project would invest huge resources in training the new employees to bring then onboard quickly, many of whom would leave the project prematurely. The project would hire more temporary people to fill the vacancies, but they had to be trained from scratch and there was a lengthy lead time before the new hires were able to contribute any significant value to the project. This staff turnover cycle had become a norm and it was hurting the project and KC in turn badly.

Eventually, KC Project Director James Rodriguez realized that the water was over the company's head, and something needed to be done. He decided to engage an outside consultant, Rick Albany, to investigate the situation and suggest the best possible remedial solution.

Initial Investigation

The first logical step Rick took toward investigation was to review KC's historical organizational project artifacts **(1)** to understand whether the company had encountered a similar situation before. After reviewing archived artifacts including lessons learned, issue logs, risk databases, and decision logs for three weeks, Rick found that the staff turnover rate started ramping up exponentially since 2008 and it became worst while the project was being investigated. He noticed that nothing was done to address the situation all along. He also found that KC used to have mostly permanent staff prior to the economic downturn impact it faced in 2008. That was

a bad year for KC that pushed the company very close to filing bankruptcy. That led the company to lay off most of its permanent staff. Thereafter, the company changed its hiring strategy to hire all new personnel on an LT basis (depending upon the length of the project the personnel were being hired for). During the planning stage of the project, Emma, the project manager suggested to KC management that the company should consider hiring at least some key positions on a permanent basis to maintain business continuity due to the long-term nature of the project. Emma's suggestion, however, was overruled by the KC management. Therefore, the project was staffed with mostly LT positions.

1 "The historical organizational project artifacts refer to an organization's historical artifacts archived from other similar projects completed previously. Leveraging lessons learned, historical information, tools, and other artifacts from previously done similar projects can save the project at hand a lot of time and money." Source: Singh, H. (2014). Mastering Project Human Resource Management, 1st ed. Upper Saddle River, New Jersey: Pearson FT Press.

Further Root Cause Analysis (RCA)

Rick invited key project stakeholders **(2)** for a brainstorming session to find the root cause(s) and potential remedies for the issue of turnover. With Rick facilitating, the brainstorming session was conducted. Rick decided to use a fishbone diagram, affinity diagram, and Pareto chart to capture and analyze the data. First, he captured the raw inputs from the brainstorming session participants, as shown in Figure 2.4.

2 "Key stakeholders are stakeholders with high power, influence on the project, and interest in the success or failure of the project." Source: Singh, H. (2014). Mastering Project Human Resource Management, 1st ed. Upper Saddle River, New Jersey: Pearson FT Press.

Figure 2.4 Brainstorming Raw Inputs

After capturing the raw inputs from all brainstorming participants, Rick used an affinity diagram**,(3)** shown in Figure 2.5, to categorize them. He identified the following categories:

3 The affinity diagram is typically used after a brainstorming session to organize a large number of ideas into relevant categories for ease of analysis.

- Tools and technologies
- Compensation
- Competition

- Nature of job
- Management
- Working/living conditions
- Tenure
- Future prospects

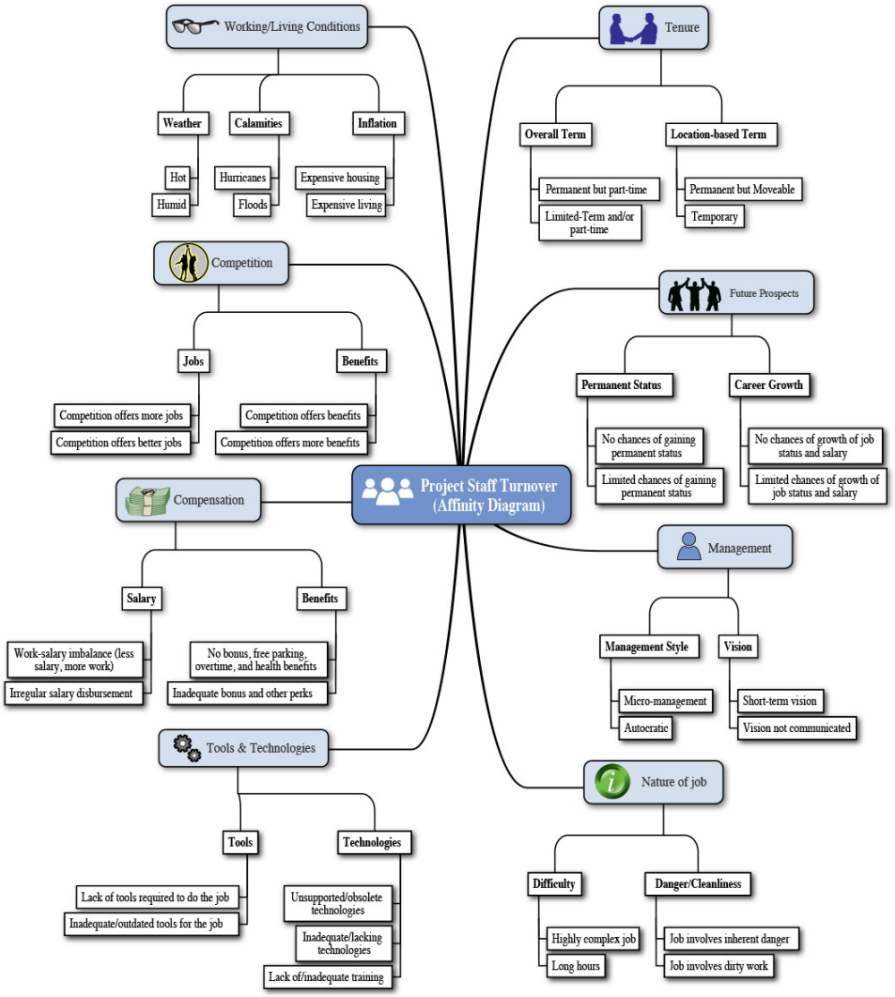

Figure 2.5 Affinity Diagram Displaying Categories of Various Causes for Staff Turnover

In the next step, Rick transferred the categorized information from the affinity diagram to a fishbone **(4)** or cause-and-effect diagram, shown in Figure 2.6, and discussed it with the key stakeholders participating in the brainstorming session.

4 The fishbone diagram (also known as a cause-and-effect diagram or Ishikawa diagram) is used to help identify various causes that lead to certain effects.

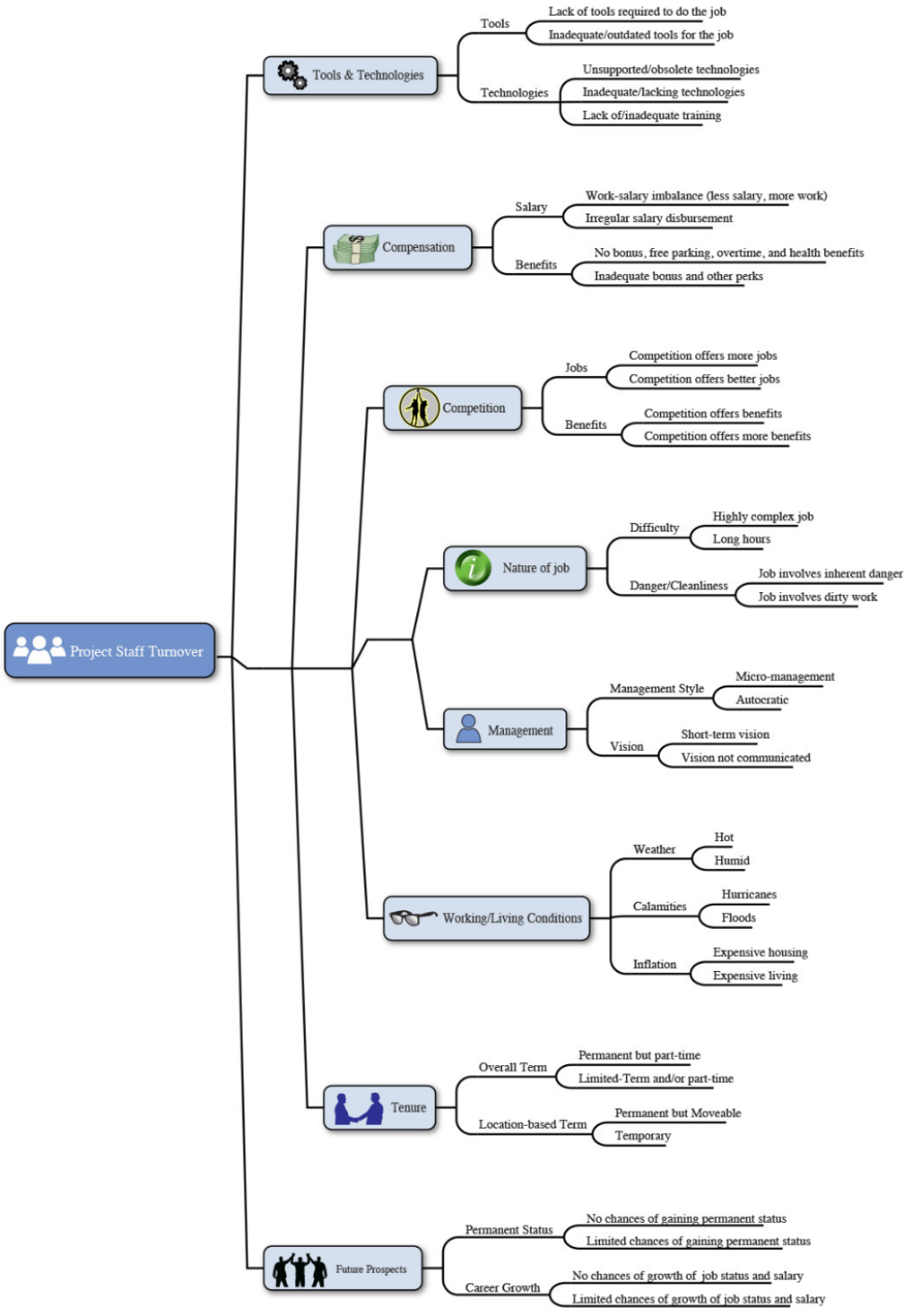

Figure 2.6 Fishbone Analysis for Possible Causes for Staff Turnover

All participants anonymously approved the possible causes identified in the fishbone analysis. Rick suggested that the KC human resources department frame exit interview questions based on the "identified possible causes" and ask them from all the personnel leaving the project over the next three months. He also suggested asking similar questions to the existing staff as well to understand what would motivate them to stay.

After three months, the collected data was analyzed. Table 2.1 captures the percentage of votes for the criticality of each type (category) of possible cause.

Category	% Votes
Tools and technologies	11.7
Compensation	15.0
Competition	1.2
Nature of job	2.6
Management	5.2
Working and living conditions	3.3
Tenure	46.4
Future Prospects	14.6

Table 2.1 Percentage of Votes for Each Area of Criticality

Rick used Microsoft Excel to develop a Pareto chart, shown in Figure 2.7, to focus KC management on the areas that needed the most attention.

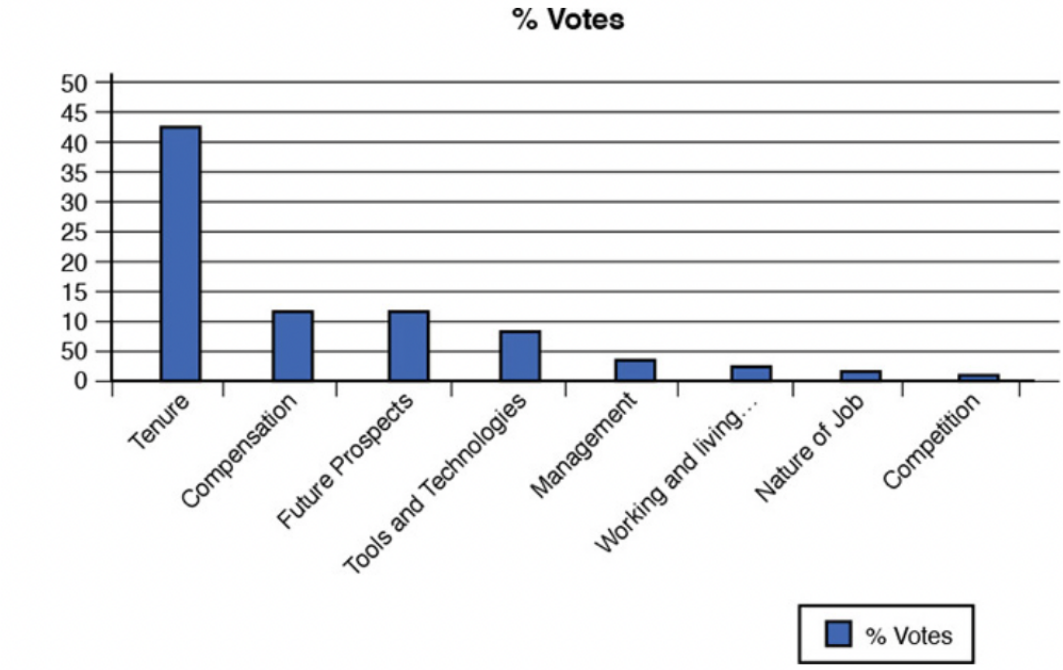

Figure 2.7 Pareto Chart Highlighting Most Critical Areas Needing Improvement

Based on the analysis, the top four areas that demanded immediate attention included tenure, compensation, final prospects, and tools and technologies. Rick outlined the following alternatives going forward:

- Alternative 1: Do nothing and live with the status quo.
- Alternative 2: Convert the key project positions to permanent full-time.
- Alternative 3: Convert the key project positions to permanent full-time, offer competitive compensation, improve job tools and technologies, ensure appropriate training, and improve opportunities for growth.

Decision-Making
Rick performed a comprehensive alternative analysis and discussed cost versus benefits for each alternative with KC management, which then decided to pursue alternative 3.

Action Plan
KC management drafted the following action plan to implement alternative 3:

- Make all key project positions (such as project director, project manager, project scheduler, business analysts, project cost analysts, and project quality analysts) permanent full-time
- Adjust paygrades to competitive levels
- Improve benefits (for example, match 401k contributions up to 3%, resume sabbatical leaves, fund Christmas breakfast and company picnics, and initiate a rewards and recognition program)
- Upgrade staff laptops to better models
- Implement SharePoint and Project Server for improvement in collaboration, productivity, and project management
- Ensure appropriate training for the project staff to learn new tools and technologies, to improve productivity in the current job, or to prepare for promotional opportunities
- Enhance opportunities for career growth within the organization (for example, start a Leadership Academy program to provide special leadership training to the employees who have the desire and aptitude for the leadership positions)

Results

KC started observing the positive results within a month after the action plan was implemented. After one year of the plan implementation, the annual staff turnover rate dropped from an average of 52.7% to merely 8.6%, an 83.68% improvement.

Case Study Questions

1. What is Rick's initial finding based on the organization's historical artifacts?
2. What data analytics tools did Rick Albany use to capture and analyze the data in this case?
3. What is fishbone analysis? How does it help in decision-making?
4. How effective was data-driven decision-making in this case?