How to Spot an Upset: 5 Seeds v. 12 Seeds

Manhattan, Kan. – The subject of much discussion, even some worry, is the match-up between the fifth seeded K-State men’s basketball team and No. 12 seeded and Utah State Aggies. But, according to Shing Chang, associate professor with Kansas State University’s Industrial and Manufacturing Systems Engineering (ISME) department, the Wildcats haven’t much to worry about from their AP-ranked 19th foes. Statistically speaking, that is.

“Over the past 26 years, five seeds have won nearly two-thirds (69-35 or 66.3%) of their first-round match-ups with 12 seeds,” said Chang, citing research by Peter Tiernan of Bracketscience.com.

“However, a closer look at the data from those 104 games shows an upset is more likely if the No. 5 seed has any of seven qualities present.”

- They didn’t go to the previous tournament
- They have a pre-dance losing streak of two or more games
- They’ve won fewer than five of their last 10 pre-tourney games
- Their strength of schedule is ranked weaker than 90
- They score fewer than 66 points a game
- They don’t have any junior or senior starters
- Their combined rebounding/turnover margin is lower than two possessions

Five seeds possessing any of these attributes are only 11 for 24 (45.8%) in avoiding first-round upsets. All other five seeds are 81.7% proficient (49 for 60) in dispatching 12 seeds.

“The good news for K-State is we’re part of that second group,” Chang said. Based on this research Arizona is the only No. 5 seeded team that falls into the victim group.

Chang, an expert in multivariate statistical analysis, is using this research to illustrate the effect of multiple quality characteristics during his IMSE 641 Quality Engineering lecture on Wednesday morning, March 16. Just in time for his students to fill out their brackets before the big dance for the Wildcats tips-off Thursday afternoon.

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