

## **2. Background research**

### **2.1 Research papers**

Kapadia et al. (2022) explored the sphere of predicting the verdict of the cricket match by means of machine learning and introduced various contextual factors, including pre-match selections, results of the toss, and so on, in the possible impact on the results of the matches. Their findings support the need to explore certain points of decision-making, such as the decision to bat or to field, and some of the factors that may have an impact. Manju et al. (2023) opted to conduct an exploratory data analysis of the IPL seasons and found that there exist tendencies in relation to the concept of scoring, the aspect of the toss tendencies, and outcome of matches, which confirms the fact that the analysis of the variables related to the toss does tend to be a specific feature altering the match outcomes. Although they did not test the results of the Mallard toss-decisions statistically, their research pointed to the existence of the supposed differences in the Mallard toss-incidents during the seasons that could be examined in more detail. The run-chase in the T20 international cricket has been evaluated by Shah et al. (2025), and it is found that the contextual factors, as conditions, decision-making, have a significant impact on the outcomes of the matches. The results, even though not IPL specific, give support to the utility of studying the strategic pre-match decisions.

### **2.1 Why RQ is of interest (research gap and future directions according to the literature)**

Although nowadays the importance of the toss is recognised, and a few of them directly quantify the effects of the actual choice that is made, again, judging by what transpires to the winning toss in the IPL, on the likelihood of winning, they do so. The previous studies also tend to mostly examine the match conditions or predictive modelling without isolating the effects of a decision. This creates a loophole where the tactical value involves the choice of picking to bat or to defend is not well researched.