

The Relevance of Game and Context Variables in Futsal Goals Scored in Attack with Goalkeeper As an Outfield Player

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Introduction: The goalkeeper as an outfield player is a tactical procedure that allows the goalkeeper to act as an advanced player, helping the attacking team to have a numerical advantage. It is being frequently implemented in futsal, usually when a team faces an adverse scoreboard in the final moments of the match, which is commonly called Critical Moment (Ferreira and Volossovitch, 2013). In addition, the presence of variables such as match location and opponent's effect can enhance or minimize the effects of a "critical" scenario and ultimately influence the success in performance (Lago-Ballesteros et al., 2012). However, little has been studied concerning its theoretical advantage and whether it is conditioned by the context variables (Vicente-Vila and Lago-Peñas, 2016), or effectiveness in real match situation (Newton-Ribeiro, 2011). Some authors have characterized the effectiveness of this procedure in relation to the game variables, focusing on the importance of the space, number of passes, and players as main indicators of effectiveness in attack (Lapresa et al., 2013; Gómez et al., 2015). The coaches still feel doubtful about making decision to use this tactic; therefore, the objective of this study was to see to which extent the goals achieved through the attack with goalkeeper as an outfield player have a pattern related with the variables of the game and of the context.

Methods: In this study, 582 goals made in attack with goalkeeper as an outfield player were collected from a total of 1,325 matches within five complete seasons (2010–2015). A two-step cluster analysis was performed to explore and classify the goals in relation to two models: one was related to four game variables, which included finishing zone (10–20 m, right side, left side, area), number of passes (1–10, 11–36), shot type (1 × 1, outside shot, second post shot), number of players (1–5); and another was related to three contextual variables: match status (losing, tying, and winning), quality opposition (best against worse, 5v4 between equals, worse against better), and match location (home, away).

Results: The results reported that both models, related to the game and the context, were good in clustering quality (see Figure 1). Concerning the context variables, the variable of greater weight was quality opposition. The characteristics of the two most important groups were (1) 31.4% of the goals made in the attack with goalkeeper as an

outfield player was obtained when similar level teams contested (100%), losing (100%), and playing away (100%). They were called goals in hostile environment. (2) 23.9% of the goals made when this tactic was carried out between similar level teams (100%), losing (90%), and playing at home (85%). They were attributed as goals in friendly environment. In respect of the game variables, the variable of greater weight was the number of passes. The characteristics of the two most important groups were (1) 48.8% of the sample is the goal made when teams played with a sequence of 1–10 passes (100%), kicking in the area (100%) with 1 × 1 action (61.1%), and the participation of five (41.4%). This goal was called precision goal. (2) 32.1% of the sampled goals was the one obtained when teams played with a sequence of 1–10 passes (100%), ending in the right zone (35.3%), with outside shot (51.1%), and with four players (44%). This goal was named surprise goals (see Figure 2).

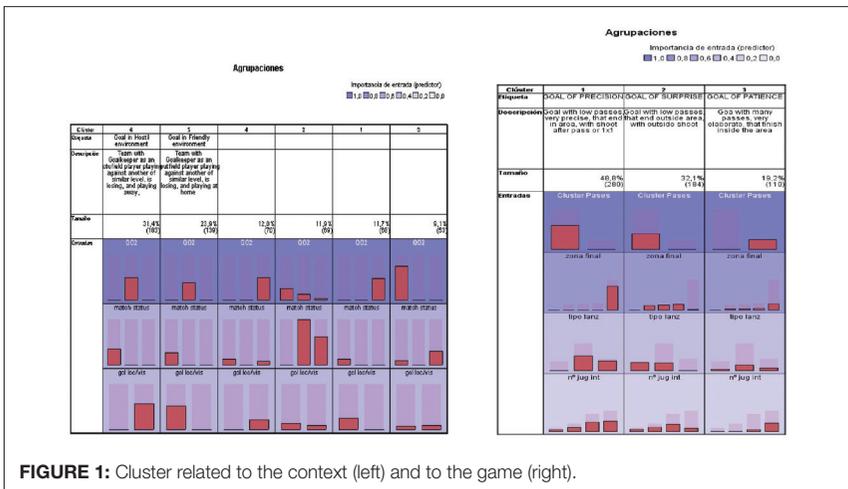


FIGURE 1: Cluster related to the context (left) and to the game (right).

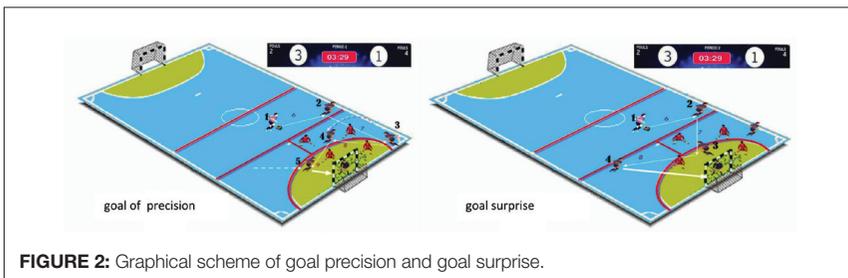


FIGURE 2: Graphical scheme of goal precision and goal surprise.

Discussion and conclusion: On the critical context, the results reflect the less importance of match status and match location. This situation was expected because the tactic of attacking with goalkeeper as an outfield player was justified by the teams that are losing and try to recovery the state of equilibrium (Newton-Ribeiro, 2011). This was in line with the study of Vicente-Vila and Lago-Peñas (2016) that speculated an unexpected non-significant influence of match location and match status on the effectiveness probability in ball possession. By contrast, the quality of opposition seemed to be the most important contextual factor that could influence the success of the goal. Therefore, if the majority of the actions corresponding to teams of similar ranking, the differentiating factor of effectiveness will be put by the highest level teams. In relation to the game, the two most important factors are the number of passes and the final zone. This seemed to be consistent with the goalkeeper as an outfield player, who has to be integrated with a quick ball mobility to strike the defense, and this numerical superiority would facilitate the teams to get closer to the area. This agreed with the previous studies that the greater success of the ball possession was related to the smaller number of passes realized and shots in penalty area (Lapresa et al., 2013, Vicente-Vila and Lago-Peñas, 2016).

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