

Sports data analysis to boost athletes' performance in real time

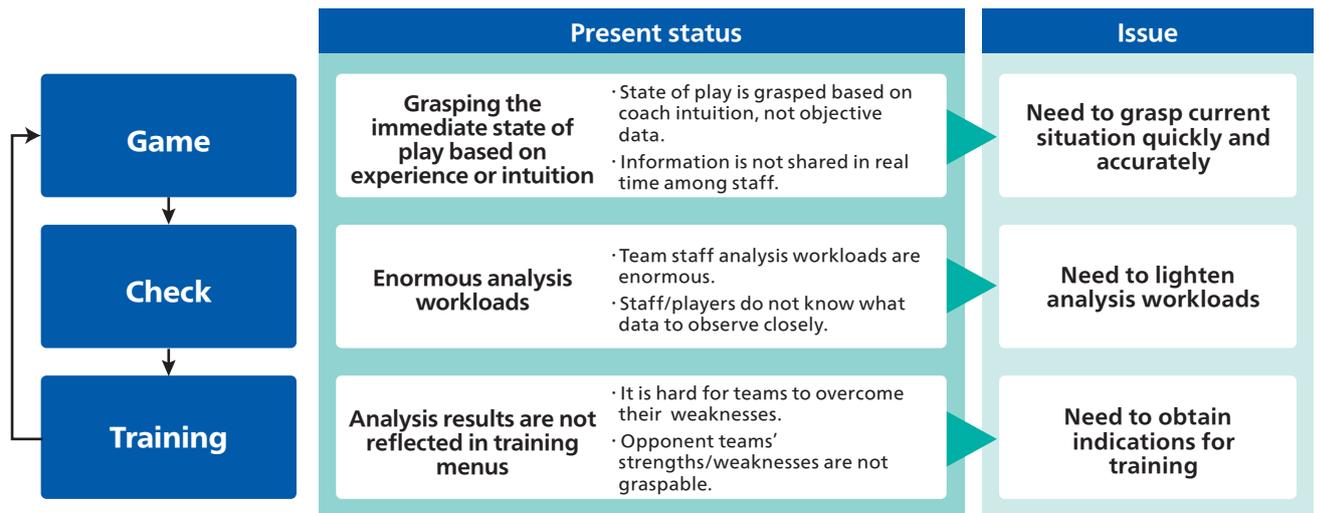
Instantaneously reflecting data analysis in on-site shouts & SMS to boost athletic performance, achieve success

As sports analytics takes on an increasingly central role, the technologies for obtaining a wide range of sports data have improved. Mass data including game data, athletes' physical data, etc., is now readily accessible. Issues remain, however, in analyzing mass data and producing results in forms that athletes can truly utilize. A strong need remains for rapid analysis, lighter workloads, access to training instructions, and more.

ABeam Consulting has been working on these issues with Japanese wheelchair basketball player Mayo Hagino, analyzing mass sports data and building systems to produce truly effective and useful results that enable athletes/teams to quickly and effectively improve their performance.

Issues in utilizing sports data

Unresolved issues facing effective on-site utilization of mass sports data



Our solution

ABeam Consulting makes it possible to obtain a rapid, accurate grasp of the state of play, and to reduce workloads through the development of an efficient data input UI and real-time RPA analysis. Our knowledge of sports analytics enables incomparably useful results through analysis. The results are managed by purpose, reflecting the game, future game strategy planning, etc. This is a solution framework that can be applied to other sports as well.

Solutions / Issues	Efficient data input UI	RPA real-time analysis	Analyses from athlete/staff perspectives	Voice push notification	SMS push notification
Need to grasp current situation quickly and accurately	○	○		○	
Need to lighten analysis workloads	○	○			○
Need to obtain indications for training			○		○

Application example: wheelchair basketball

Efficient data input UI

This UI enables users to input game data during play: who does what, where and when. The efficient and intuitive UI allows team staff to quickly and easily input various game data and lighten workloads. The input data is collected and analyzed in ABeam Cloud® in real-time.

[Figure 1]



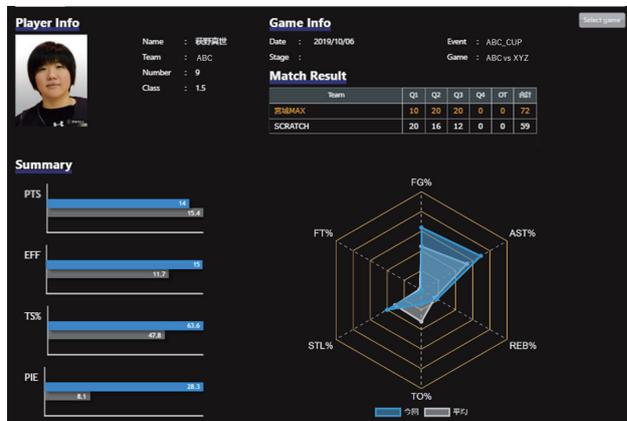
Analyses from athlete/staff perspectives

Output results differ depending on who they are for (players, coach, staff, etc.) and when they are needed (during training or before, during or after games, etc.). Our system puts out simple, necessary and intelligible results so that users can obtain indications of what actions to take next.

SMS push notification

After games, our system sends push notifications to each player via SMS. Quick feedback provided to players while their memories are still fresh helps them to review games efficiently.

[Figure 3]



RPA real-time analysis

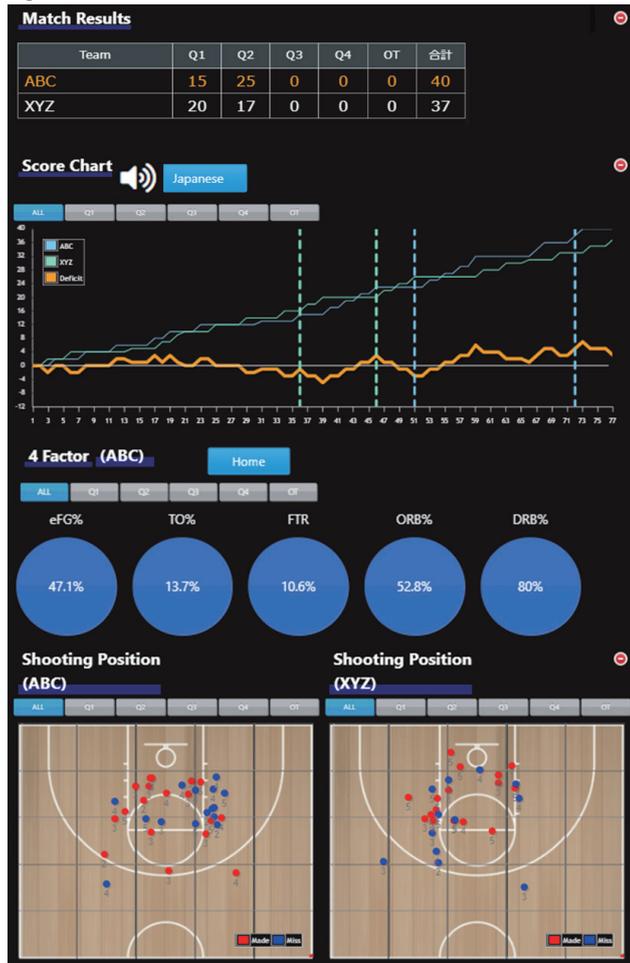
Data collected in ABeam Cloud® is automatically analyzed, and the results are instantly provided to coach and staff. In addition, the analysis contents are customized according to wheelchair-basketball-specific rules and features, such as classification*.

* Players are assigned points (1.0–4.5) as their classification according to their "degree of disability". The total number of points allowed on court at any time is 14.0.

Voice push notification

Urgent or critical information is delivered to a coach in real-time during game by voice push notification. There are times when a coach or staff member cannot check data visually. Voice push notification ensures that a coach or staff member will not miss important information, and helps them exercise quick decision makings.

[Figure 2]



* While [Figure1] through [Figure3] are clipped from the demo-data of ABeam's employee Mayo Hagino, Japanese wheelchair basketball player, the solution is applicable to various other sports and games.



Mayo Hagino

Employed by ABeam Consulting Ltd.
Born: Sendai, Miyagi

Career results

- 2010 World Championship 7th
- 2011 U25 World Championship 5th
- 2011 All Japan Wheelchair Basketball Championship 1st
- 2014 World Championship 9th
- 2015 U25 World Championship 6th ("Best 5" awarded)
- 2008 ~ 2018 All Japan Wheelchair Basketball Championship 1st